

Microsoft Catalogue

- 1993 -



SOFTWARE
Express

This catalogue has been produced as a cooperative venture between Software Express and Microsoft. The most significant item is, of course, the long awaited Windows NT. In a few years no doubt, as RAM prices return to normal and 32 bit applications become available, there will be a significant shift to this platform, just the way Windows 3.1 paved the way for a major shift to a graphical user interface. We look forward to a whole raft of these applications over the next year or two. They will be faster, easier to use and much more intelligent in their operations.

The information herein is a compendium of the most popular Microsoft products. These products have become a major part of the software business, accounting for some 35% of our sales. We have tried to keep a level head in our descriptions so that hype doesn't get in the way of the information, as is our tradition with all our catalogues. Where there are many permutations of some products in the form of licence packs, add-ons etc, we have described the main functionality as a starting point.

Software Express is now ten years old and we have been through a fast growth phase over the last one and a half years since we came to terms with the recession. We have expanded our operations to Brisbane and streamlined our delivery systems to give you the best access to speedy delivery of information and products. Our service is constantly under revision and improvement and we think this has resulted in our growth in the face of trying times. We look forward to improving further over the next year.

In addition to this catalogue, we have our main catalogue which contains all of the products we carry. It comes out in the first quarter of each year. If you missed out this year, ring or fax us and we will happily send you a copy.

Software Express.

We know Software.

CONTENTS

INFORMATION

ADDRESSES:

1st Flr, 43 A'Beckett St, Melbourne 3000
Phone.....(03) 663 6580
Facsimile(03) 663 6117

1st Floor, 60 Clarence St, Sydney. 2000
Phone.....(02) 299 4799
Facsimile(02) 299 4797

Gnd Flr, 348 Edward St, Brisbane. 4000
Phone.....(07) 832 2277
Facsimile(07) 832 2055

DELIVERY:

Free same-day delivery within Sydney,
Melbourne and Brisbane CBD.
Next-Day delivery in most cases.

METHODS OF PAYMENT:

BankCard, MasterCard, Visa welcome.
Personal and company cheques accepted
with suitable identification.

PRODUCT

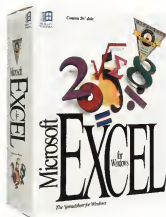
PAGE

Excel.....	2
Open EIS.....	3
Money.....	4
PowerPoint.....	4
Project for Windows.....	5
Publisher.....	6
Word for Windows.....	7
Works.....	8
Works for Windows.....	9
MultiMedia Beethoven.....	9
Bookshelf.....	9
Cinemania.....	10
Dinosaurs.....	10
Encarta.....	10
MultiMedia Viewer.....	11
Musical Instruments.....	11
Soundbits.....	12
Windows Sound System.....	12
Video.....	12
Flight Simulator.....	13
Access.....	13
Access Distribution Kit.....	14
COBOL.....	14
Delta.....	15
Device Driver Kit.....	15
Foxpro.....	16
Foxpro Distribution Kit.....	16
Foxpro Library Construction Kit.....	17
Fortran.....	17
Macro Assembler.....	17
Test.....	18
Visual BASIC for Windows.....	19
Visual BASIC for DOS.....	20
Visual C++ Professional.....	21
Visual Control Pack.....	23
MSDOS 6.0.....	23
Mouse.....	24
Mail.....	25
Schedule +.....	25
Windows.....	25
Windows Resource Kit.....	26
Windows Workgroups.....	26
Windows Workgroups Resource Kit.....	27
Windows NT.....	27
True Type Font Pack.....	28

This material is copyright, however please feel free to photocopy
for your own personal use.

*Microsoft, IBM, Epson, Hewlett Packard Laserjet, are
registered trademarks of their respective owners.

Errors and omissions expected. Address your hate mail to Greg Boot.



Excel

- Spreadsheet for Windows with excellent graphics.
- Statistical and many other functions.
- Easy to use and comprehensive graphing facilities.

S21053 Version 4

The very best aspect of this spreadsheet is its ease of use and its handling methods. For instance, adding the sum function automatically adds all the numbers in a column. Similarly, copying a month to a number of cells in a row (done by simply dragging a copy handle on a cell), produces the subsequent months. These are called series and can be used in many ways and can make quick work of setting up a spreadsheet. Functions can be selected from a menu and pasted in. Your own formulas can be created, named and added. Data tables can give a set of outcomes for a given set of formulae. The toolbar is a handy set of command buttons which carry out often used complex commands. This has been taken to its logical extreme with a large number of subsidiary toolbars which can be popped up and positioned at will. A further five can be popped up this way, charts, macros, formatting, drawing and utility. You can even create your own buttons.

You can have multiple documents open at the one time. Related documents can be saved in an associated way in a workbook, and hence all loaded together at the same time. Templates can be

created and used to save time and keep consistent documents. Array formulas can be used in worksheets, to save time and memory. Recalculation can be controlled so that it does not interfere with data entry, but, is carried out in background, or, when invoked. Recalculation is intelligent, involving only those cells that are affected by a change. Non printing notes can be attached to spreadsheets.

There is a large range of formatting options and with Windows you naturally get to see what your fonts and borders etc look like. You can set up formats for dates, numbers, currency to suit yourself. There are many standard options to choose from as well as having the flexibility to create your own. Text can be aligned and justified at will. Cells can be shaded or half-toned. Styles can be saved and reused. Being graphical, column widths can be easily dragged to width. Outlining allows different views of a spreadsheet, with hidden cells.

With the database option it's easy to set up a small database, entering and extracting information through a sophisticated ready made dialogue box. Sorting can be carried out on three keys at once.

Spreadsheets can be linked via cells or ranges of cells, so that updating occurs automatically.

Charts is an area which has been particularly well handled. Creating a chart is particularly simple. Charts can be created as a stand alone item, or embedded into a worksheet. The ChartWizard tool is a walk through method of creating a chart. You can select from one of 14 chart types each with many subtle variations. They include area, bar, column, line, pie, radar, scatter combination, 3d area, 3d bar, 3d column, 3d line, 3d surface and 3d pie. After creating a chart it can be easily changed by do selecting from the chart toolbar. You can add labels headings even arrows and text.

There are a limited number of drawing tools with which to enhance presentations with graphic objects. These include line,

oval, rectangle and arc. Of course, you can import graphics from other applications. Documents and graphics with transition effects and time delays can be presented as a slide show on the PC using the special template provided.

It can read and write files in the format of other leading spreadsheets - including Lotus 1-2-3. You are able to link multiple worksheets together, work with several spreadsheets at once, view them on your screen at the same time, compare numbers from different worksheets and consolidate information from an unlimited number of sources into a single document. Or, if you prefer to work on one big sheet there's plenty of room - each worksheet can contain up to 256 columns by 16,384 rows, more than four million cells in all. Figures and formulae can be checked with the auditing tools. You can add explanatory notes to any individual cell, select cells in groups - text, data, notes, formulas, predecessors, or dependents - and review them together. You can trace back a number to see the preceding data it relies on, and the dependent data affected by it. You can also name formulas instead of describing them with complex cell locations - even after your spreadsheet is complete. (EG. You can easily replace the formula C14-E27 with the formula Revenues - Expenses). You can outlining so that sections of a spreadsheet can be collapsed out of sight or expanded to suit. The Q+E base editor has been included for accessing and sorting data in several database formats.

It is able to do many types of calculations. It has functions in many categories though the numbers are too large to mention them all here, however, we have chosen a sampling to give an idea of the scope.

Financial: Accrued interest, cumulative interest, discount rate, effective interest, internal rate of return, yield, Tbills, and many more functions dealing with securities, mortgages and the like.

Date and Time: Datevalue, end of month, minute, number of workdays, weekday, year fraction.

Mathematics and Trigonometry: All transcendental functions, exponent, greatest common divisor, matrices, random, sum of power series, square root, sum of squares in array, truncate to integer.

Statistical: Average, beta probability, chi squared dist., confidence interval, F probability, Fisher transformation, gamma distribution, hyper geometric, binomial and negative binomial, percentile, rank, standard deviation, Poisson, student t, Weibull. Macros include ANOVA1, ANOVA2, two sample Ftest, correlation coefficient, paired t test.

Reference: Choose, relative position, offset, transpose.

Database: Cross tabulation, extract, maximum.

Text: ASCII, compare, convert number, remove non printable, find, lower/uppercase, mid string.

Engineering: Bessel, a large range of complex number functions, conversions, degrees to radians, logarithmic. Macros include Fourier transforms.

Analysis of data is facilitated with a number of statistical and numerical analysis macros. You can do what if calculations using a data table for insertion of values. You can have a one input table for multiple formulas or a two variable table for single formulas. Iteration is possible with controls over incremental changes. The solver uses numeric methods for equation solving and optimisation. Statistically you can perform single factor ANOVA, a two factor, with or without replication, correlation, co variance, descriptive, exponential smoothing, f-test, histogram, moving average, rank and percentile, regression, t tests (various) and z test.

Its best aspects are its ease of use.

Help and Learning:

There is a tutorial that gives you a basic rundown of the major features which is good enough to get you started. For Lotus users there is an easy conversion reference giving equivalent commands.

Documentation:

User's guide 1 basic functions, graphs and databases - 640 pages. User's Guide 2 using numerical methods and statistical functions, macro creation, customising and creating applications - 350 pages. The function reference 540 pages. The guide for Q+E is 160 pages. There is even a guide exclusively for those defectors from the Lotus camp, 40 pages on switching. There is also a 14 page quick reference to all those buttons and things on the toolbars.

Comment:

An excellent (sorry) program with ease of use for simple tasks, but with features powerful enough to do some real number crunching.

Coming Soon:

Version 5 is rumoured to have some major enhancements. The most notable is incell editing (why this hasn't been around for years is beyond me, I never know where to look on the screen, the editing spot or the cell, mainframe hangover I guess) including fonts and colours etc. so you can vary formats from cell to cell. There is a new set of 3D pivoting commands which will enable rotating of 3d graphs along with the setting of the observation point. Help has improved and become more interactive, along with a Tips Wizard to show you a "better way". There is improved manipulation of charts and chart objects, and additional functions such as smoothing, curve fitting and error bars. There are now several new sets of toolbars including querying, pivoting, auditing and work groups. The database sorting has been improved. Now remember these are only vague rumours, and the release date is likely to be around the end of the year

RRP \$695

Our Price \$550



Open EIS

- Produces Enterprise Information Systems
- Easy to produce end user interfaces for accessing and displaying information and graphics
- Can access a number of Windows packages.

S21572 Version 1

A set of macros for Excel which allows you to easily create a front end for end users to enter and display data without you getting involved in actually writing macros. You can simply select views of charts spreadsheets and documents, present them according to a script, and add commands and buttons, prompt for input, carry out validity checking etc. You can easily link to documents from Project, Word and Access using live links. The EIS stands for Enterprise Information Systems, and the Open means that the product it is pitched against is a closed system, sort of defining the product in terms of its competitor as does most of the documentation. It is however a handy way of pulling data from disparate sources together into a single functioning information display so that data can be presented and collected without the user being super proficient in the use of any of the applications.

Help and Learning.

There are some demonstration files on the disk and a somewhat flawed tutorial in the reference book.

Documentation:

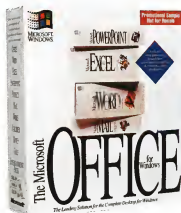
User Guide 33 pages (somewhat less than adequate), A Guide to EIS with Microsoft Applications 89 pages.

Comment:

Sort of a macro macro.

RRP \$149

Our Price \$125



Money

- Cashbook and expenditure tracking

A22140 Version 2.0

A simple to use program for keeping track of cheque accounts, expenses, budgets, credit cards, business accounts etc.

You can set up accounts for a cheque account, a savings account, credit card, cash, assets, and liabilities (accounts receivable and payable). Entering transactions into an account you can specify deposits, withdrawals and charges. You can specify the name, a note, a category and a sub category for each transaction. Hence you can specify a cheque to Fred Bloggs, for a new clutch, under car repairs for Bill Smith's car. Transactions can be split amongst more than one category. When entering payments the name of the Payee is stored so that the next time you enter the first few letters of the name the rest is tentatively completed for you along with the description and category. Saves a bundle of typing on repetitive transactions.

Accounts can be associated and payments can be transferred between them. It comes with a set of general purpose categories which can be used to get started. There are sets for business and personal use. Hence business accounts will have categories such as advertising and travel, whereas personal accounts will have education and groceries.

Transactions can be found by searching on any field. Transactions can be displayed and sorted on any field. You can display transactions in order of transaction number, date, by payee, or by category. ie. you can display all transactions greater than \$20 or all car expenses or between two dates and a category, in other words almost any combination that works.

Bank fees and interest are entered like any other transaction.

When reconciling your account, you verify the starting balance, log all cleared transactions and match against the ending balance of your statement.

You can print cheques (you may need to clear this with the current breed of "friendly" bank managers) on printed forms.

Report printing is of course a major function of this program. You can specify ranges and fields for reporting, produce an income and expense report and export reports to a spreadsheet or a word processor for better formatting or further processing. Data files are however, not exportable.

Categories can be renamed, added to or deleted. You can add one or more classification fields.

There is a budgeting function. Each category can have a yearly or monthly budget. These can be individually set for each month, categories can reflect subcategories. Progress can then be compared with the budget on reports.

Future transactions can be scheduled, so that regular payments are prompted automatically. Assets and liabilities can be entered so that when you apply for

that huge negatively geared loan you can give your FBM something to read before knocking you back. By setting up a separate account for each you can keep track in a rudimentary way of accounts receivable and accounts payable these can then transfer out of and into the bank account. Payroll can also be tracked in this way.

Money automatically saves a backup copy to a floppy drive. Help and Learning:

There are a set of lessons on each aspect of the data entry and procedures. On line help is available via the Windows help facility.

Documentation:

A single slim volume of 165 pages. Total disk space 1 Mbyte.

Comment:

A simple to use program which can be used to run a cashbook in many small businesses as well as track home expenditure. Budgeting is a function in great demand these days of economic travail.

RRP \$59

Our Price \$55

Powerpoint

- Presentation graphics for speakers and promotions.
- Produces slide shows and overheads.

G25040 Version 2.0

An interactive tool for creating presentations. You can produce the content at the same time as you produce the materials with which to present it. Because of its outlining style of operation it encourages you to put your presentation together as the thoughts come. The slide is the basic unit of operation. These can be turned into 35mm slides, overheads, handouts speakers notes, or computer screens. Scaling to size for output is automatic. Slides are created with headings, bullet points, notes attached, colours and graphics. There are several views, slide (as it appears), notes (with attached notes), sorter (the series of slides in

thumbnail view), and outline (the text of each slide). You can zoom in for 400% views or out to 25%.

Creation involves making up a series of slides with titles and bullet points, then adding graphics, notes etc. A template can be applied at any stage for an overall look, and transition effects can be added.

Titles and bullet points are automatically sized, but fonts, sizes and style can be selected using Truetype fonts. Bullet points, headings and slides can be promoted and demoted both within and between slides.

When your ideas are on the slide(s) you can add graphics as well as lines, arrows and shapes. There is a good collection of clip art images provided (500). These are composite images and can be broken into their component objects. Objects can be scaled, (this happens on the fly whilst typing in the scaling factor - fascinating) and moved into position. Lines and arrowheads can be added as can circles, curves, boxes and a series of 24 ready made shapes such as stars, triangles, arrows etc. The graphing tool found in Works and Project Manager is included also. This enables the creation of some 80 chart types with numerous options for fills, colours etc or the chart will automatically be coloured to suit your template. Charts include pie, scatter, line, column, bar, area and combination in 2D or 3D. Any object's colour can be changed from a wide range of colour choices. You can add your own backgrounds and styles etc, but with some 160 templates available, you will probably use an existing one. These can be modified to suit. There are styles to accommodate black and white handouts, colour printers, the slide viewer screen presentation and overheads. These can be applied at anytime to change the overall look of one or a series of slides. This means you can create your presentation and then fiddle endlessly to get just the right look. In fact you will probably do this the first few times you use it. It tends to be addictive.

There are numerous transition effects available including wipes, dissolves,

fades, box out, checkerboard and blinds. Timing can be set to suit. You can create builds giving animation effects as you lay objects over a slide.

The true type fonts can be included with your presentation so it can be reproduced on other machines. OLE is supported as both client and server, so you can embed presentations in other applications. It also has support for MCI sound and video so you can make productions bigger than Ben Hur.

The Viewer comes in a runtime version so you can distribute your presentation for promotional purposes.

Help And Learning:

There is the usual windows online help and the existing templates save a lot of effort at the design stage. The manual has a series of mini tutorials to get you started.

Documentation:

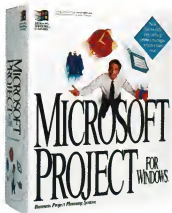
The handbook runs some 650 pages.

Comment:

A much improved version of Powerpoint. It is now competitive with other presentation packages. This is a really simple way to produce presentations. With its outlining mode of operation you may as well dispense with any planning, just start producing the material. It soon all falls into place.

RRP \$695

Our Price \$585



Project For Windows

- Project manager for large and small scale projects.
- Graphical interface with excellent resource handling.

PM3440 Version 3.0

A project management tool combining the three traditional methods of project management, The Critical Path Method, Program Evaluation Review Technique and the Gantt Chart, with the flexibility of a computer manipulated output.

Projects are entered as a series of tasks to be accomplished by the use of resources. Each task is specifically entered along with its duration and use of resources on a task entry form. The resources (people, equipment) are entered on a resource form. Tasks are promoted or demoted to give an outline structure. Projects can be linked to any number of other projects, so that they can be handled separately as sub projects. There is a good deal of flexibility in the setting up of calendars to reflect working days, hours, public holidays and these can be assigned to individual or groups of resources. You could have, for example, office workers can be working 9-5 and labourers 7-3. Tasks can be linked to other tasks with or without lead or lag time, to reflect the schedule of operation and dependent operations. The project is then set for comparison purposes as it proceeds. Modifications can also be set so that projects can be revised and compared against original targets..

The resources and tasks are tracked through a series of views which can be applied to the data. The graphical views available are the Gantt Chart, PERT Chart and resource graph. These give varying representations of tasks and resources and their relation to other tasks and resources. There is a task PERT so you can focus on a particular task or summary task. The tabular views are many and can be modified to suit. The standard views will show you costs, hours and dates in various combinations. Hence, any part of the project or all of it can be examined from a number of different aspects, to determine conformity or otherwise to schedule and budget. You can add filters to home in on specific sets of tasks or resources. You can build PERT charts interactively, adjusting task durations and dates by dragging the bar on the Gantt chart. You can link and edit tasks by clicking with the mouse. Additional resources can be brought into play and non critical tasks can be delayed easily. Changes are reflected instantly in both task and project time. It has CPM, finish to start, start to finish and finish to finish relationships, lead - lag, free, total and negative slack, ASAP, ALAP, must start/finish on, start no earlier/later than, finish no earlier/later than, resource driven scheduling, task driven scheduling, backward and minutes, hours, days, weeks, and elapsed duration.

All views can be printed and Headers and Footers added. There is also a copy of Graph with it for creating custom graphs (see Word for Windows for a description of Graph's capabilities).

Help and Learning.

There is a comprehensive set of on board tutorials, nicely split up so you can run a quick refresher course on any aspect at any time. Windows on line help is also available. The ubiquitous "wizards" are here again. The most useful one is creating a new project which will get you started straight away. Working with columns helps change column parameters quickly, setting preferences does the same for the look of the form

(colour, date, toolbar etc.) and resolving resource conflicts helps correct boo boos.

Documentation:

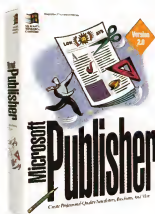
A beginner's guide (Feature Guide) of 120 pages, a reference manual of 700 pages and the Graph manual 120 pages.

Comment:

Can be used on projects such as construction, marketing, launching a new product a new branch anything which requires planning and resources.

RRP \$1105

Our Price \$925



Publisher

- Produces flyers brochure and newsletters.
- Handles text and graphics.
- Headings and columns with flow around.

W21390 Version 2.0

Produces layouts of general business documents quickly and easily. Suited to single page layouts such as forms, newsletters, flyers. It works with frame type objects which are placed on a page. Frames can be moved and sized at will. A text frame carries the normal descriptive text, text can be flowed from frame to frame. A Wordart frame has the headings and titles in it. A picture frame carries clipart and logos. In addition you can use lines, boxes, rounded boxes and circles to create the forms on the page. The text in a text frame can be selected from any of the Windows fonts, and the

character spacing and line spacing adjusted by small increments. Hence text can be tightened to fit or loosened for a more relaxed look. Picture frames can be enlarged or reduced in either direction and provided, scaled and cropped. The Wordart object has some 19 fonts available to it. Fonts can be stretched vertically, curved upwards and downwards, placed on an angle, provided with shadow and background colour. Frames can be filled with a background shading pattern, and borders can be in several thickness, with or without fake shading. Objects can be placed in background so that they will appear on each page consistently, but don't clutter up the working area. Although mainly single page oriented, pages can be numbered and pages arranged to be facing. There is a good collection of vector format clipart (CGM) and borders. It will read pictures from a variety of sources in the following formats WPG, DRW, DXF, HGL, CGM, EPS, TIF, PCX, PLT, BMP and WMF.

Help and Learning:

There is a mini tutorial in the program which shows you how to get started. Of greater use are the "Wizards" a set of macro like ready made walk through documents. These give you several options in the make up and then produce a standard form which you can use as is or modify to suit. The ready to wear collection includes calendars, newsletter, 3 fold brochure, a number of everyday business forms including quote, fax, invoice, and more. The "wizard" steps through each step at any speed you desire so you can watch the creation. Also included are a bunch of templates for such things as business cards and envelopes to which you add your own text.

Documentation:

The users guide is 300 pages long and has many samples and illustrating layout techniques and a clear description of using publisher for the most basic user.

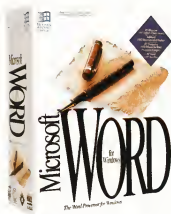
Comment:

This is a simple program to get started. In fact it seems to have been designed with the novice user in mind. With the

"wizards" if you can stand all the bubblyness, you can do most jobs around an office or at home without really learning much about how to drive the program. The templates fill in the gaps. Whilst the command set is not great you seem to be able to do a lot with this package.

RRP \$299

Our Price \$255



Word For Windows

- Text formatter of enormous flexibility.
 - Publishing facilities.
 - Good handling of paragraph layout.
 - Graphics abilities.
 - Proofing tools for text.
- WW21645 Version 2.0c

A comprehensive word processing and publishing program designed to cover all the needs of the intensive word processor user. It has all the necessary bits for creating all sorts of documentation and includes such bonus extras as an equation editor, a drawing editor and some interesting manipulations for text to add a little zip to your program.

The Word processor has an endless list of features which are detailed below. For the sake of the pine forests the detail has been kept to a minimum.

There are three views or text entry modes. For speedy entry on slower

machines there is a draft mode which uses the standard windows font and enables quick scrolling, a normal view which shows text formatting, but not page layout, and a layout view showing all columns and page frames etc. You can open multiple documents at one time or have multiple views of the same document.

Formatting can be carried out at the character, paragraph, page, and document levels. These formats can be saved as styles. The characters can be changed for size, type (bold italic etc.) font, super/subscript, colour and spacing (compressed by points or expanded by points). Paragraphs can be controlled for alignment and justification, indented, partial indented, tagged for widow and orphan control and line spacing. Pages can be sized and oriented as well as columnated. Paragraph formatting can be saved as a style and applied to other paragraphs easily. By adopting certain styles such as Headings, a table of contents can be generated automatically.

Headers and footers can be defined easily in single or multi lines. Page numbers and chapter names can be easily defined and set for odd or even page numbers, or first page etc. Footnotes can be added to documents in a variety of styles and anchored to text. You can also produce annotations which are non printing or printed separate from the main body of text, and you can add revision marks to keep track of and see changes. Borders can be added to text to make it stand out with choice of size and shading. Columns of numbers can be easily formatted using decimal tabs so that proportionally spaced fonts can still produce good looking columns of dollar amounts. Tables are easily made up with flexible adjustment of column width and number of rows. They can be used to create forms and for specific placing of text in columns of unequal size. Tables can be set up with borders and internal lines of different thickness etc. The tables can be easily transferred to and from Excel.

Style sheets or templates can be created

to make the production of common documents easy. These can have "fields" for common updatable data such as date, author, numbering of tables and paras, cross references to other text and more. Other uses for "fields" are merge printing or mail merging. A standard set of protocols for mail merge comes with the program.

You can fix the position of any item, text or graphics by placing it in a frame. The frame can be moved or resized. Graphics objects change in size to fill the frame. Frames can be anchored to text or aligned to margins etc. Text can be flowed around. Graphics can be added to documents from a variety of sources including WPG, DRW, DXF, HGL, CGM, EPS, TIF, PCX, PLT BMP and WMF file formats. Graphics can be further edited in Draw, an embedded editor which can create and modify simple drawings. It's hardly a major drawing package but, it does allow some modifications on the fly.

Files created in other windows applications can be hot or cold linked or objects can be embedded so they can be edited from within Word. Files can so be imported from a range of applications including Wordperfect from 4.1 to 5.1, Word for DOS and Macintosh, Excel, dBase, Lotus 123, Wordstar 3.3-5.5, write as well as the RTF and RTF DCA formats.

There are a number of useful tools with WW2 which include a spelling checker, (Macquarie), a grammar checker (a particularly irritating invention guaranteed to produce an argument between yourself and the inanimate object about your real and perceived weaknesses), and a thesaurus (word source, guidebook, reference encyclopedia of other words).

It has some useful abilities such as sorting (ascending, descending, date numeric, alpha) maths (add, multiply, %, power, root), and glossaries for reusable objects (boilerplating) such as logos, standard paragraphs and unusually formatted text.

For the mathematically inclined, WW2 has an equation editor with a full complement of mathematical symbols and operators, allowing the production of almost any equation.

The graph tool enables the production of graphs and charts as embedded objects from tables. You can create many chart types including bar, pie, line, and 3d.

The program has a toolbar at the top with buttons for common tasks such as create a table, printing, cut and paste. These can be redefined from the large number of commands available so a commonly used key combination can be assigned to a button. There is also a large number of macros available (WW2 has its own BASIC like macro language) which can be assigned to menus, buttons, or included as part of particular styles. You can easily record key sequences as macros and save them for reuse. There are many customisable aspects, you can set a directory for document files, autosave, display formatting characters, redefine the command keys and buttons, set units to imperial or metric, points or picas.

The Word art feature gives you some quick simple tricks with headings for sprucing up a document or a flier. You can angle text, arch it up or down, fill it in various colours, or with background, and set the font size (it comes with its own set of sixteen fonts).

Help and Learning:

There is a quick getting started on board tutorial as well as an intensive set of tutorials related to particular topics such as formatting and proofing, which take you step by step through creating documents using common features. There is a well cross referenced help file on disk which can be scanned from within the program. There is even a specific set of instructions for Wordperfect users (rivalry runs rampant).

Documentation:

The main reference manual is some 840 pages long and is set out in topic format. For particular commands you will need to go to the index. In addition there is a

getting started manual 30 pages, and one for each of the embedded applications Graph, Draw and the Equation Editor, 120, 90 and 100 pages.

Comment:

A genuinely excellent product, with very few vices. It's hard to imagine what other features you may want. Linking and embedding allows the production of compound documents.

RRP \$695

Our Price \$550



Works

- Integrated combines word-processing, spreadsheet and database for new and casual users

12216 Version 3.0

A combination of the major every day applications. It has a word processor, spreadsheet, database and communications. Furthermore it has some minor tools such as an alarm clock, calculator and file management system.

The word processor can produce letters, short documents, and mailing labels. It has a spelling checker and a thesaurus. You can add headers and footnotes, use some different fonts and sizes, indent paragraphs, justify and centre text. Templates can be created for regularly used documents. Text can be copied or moved, or surrounded with a border. For columns of numbers, a numeric tab can be set. Charts can be exported from the spreadsheet for insertion into a document.

The Spreadsheet can be used to produce budgets and calculate quantities. The spreadsheet will handle up to 4096 rows and 256 columns. It automatically recalculates after any changes. A sort facility allows sorting of rows and date and time can be stamped. Columns can be moved, sized and hidden. Titles can be frozen. Charts can be produced from the spreadsheet in bar, stacked bar, line, area line, pie and xy formats.

The database is suitable for producing mailing lists and price lists. The records can be sorted, and records selected by key to produce reports to order. Formulas can be entered in the database where one field depends on another. Numbers can be formatted for producing reports which are readable. The database has the same number of records as the spreadsheet, that is 4096 records, 256 fields.

The communications package enables the connection to bulletin boards and online information services as well as transfer files between two computers. It only supports XMODEM transfer protocol and emulates a VT100 and a VT5

Several windows on a document or multiple documents, can be opened up at the same time, making the transfer of information between the four sections easy.

Help and Learning:

There are tutorials on board for each section. These are real hand holding tutorials for the absolute beginner. An experienced user may find these insulting. There are a series of templates for often used documents, such as budget, chequebook, address list, form letter, mortgage, and inventory. There is an on line help facility.

Documentation:

A single manual is included which runs to 400 pages. Total disk space 2.8Mb.

Comment:

A simple set of tools for the beginning computer user. The package contains the major applications in cut down form giving functionality as well as the opportunity to explore and define the limits of your requirements.

RRP \$215

Our Price \$180

Works For Windows

- Integrated combines wordprocessing, spreadsheet and database for new and casual users

122418 Version 2.0

A windows version of the integrated package above. Takes advantage of the Windows interface to give a swisher look, better fonts handling (up to 48 points) and graphics and the creation of hot links and embedded objects. The word processor, database, and spreadsheet have the same function as the DOS version. In addition there is a drawing tool which can be called up at any time to modify or create objects for use in documents. As Windows already has a communications package, one is not included here.

To get you started, this version provides a set of "Wizards", or walk-you-through applications to get started. They are Address Book, Form Letter, and Mailing labels. There is also a set of templates for popular documents.

Help and Learning:

There is a set of tutorials which will show you, then walk you through each step of producing various aspects of documents. The on line help is in the familiar windows style with hyper links and index searching.

Documentation:

A getting started manual of some 46 pages, and a User's Guide of 411 pages come with the package.

Comment:

Much easier to use than its DOS counterpart. It also comes with a handy collection of clip art with business pictures such as arrows, cities, binders, and some cuter ones, (if you're into war toys), of police cars and helicopters.

RRP \$239

Our Price \$215



Beethoven

Musical exploration
CD ROM

CD1770 Version 1.0

An excellent introduction to classical music. This multimedia production takes you step by step through Beethoven's most famous work the Ninth Symphony. Based on a 1965 recording by the Viennese Philharmonic and State Opera. There is even an appearance by Joan Sutherland.

It gives you complete information on the breakdown of the various movements, and runs you through each of them step by step giving samples of the various components and aspects of the sound as well as letting you hear the full work. You can even play the music sections on a conventional CD player. The text is by R. Winter a music professor of some renown.

The program is in five sections. The pocket guide shows 37 sections from the four movements which you can select and play, a glossary of terms is included.

Beethoven's world gives you information on the life and times of Beethoven, his compatriots and fellow travellers, the music as it was played then and now and generally creates the setting for the symphony to come.

The art of listening is a simple but, effective way of learning about the constructs of classical music with samples of sounds of both simple

instruments and from the symphony to explain the concepts.

A close reading is a full playing of the symphony with accompanying explanatory text, it can be paused and replayed at will and concepts referenced in the glossary.

The 9th game is a little light entertainment to see how much knowledge has been gleaned from the experience.

Help and Learning:

This program is help and learning and very nicely set out.

Documentation:

Minimal a pocket sized 20 page booklet mostly telling you which buttons to push. A nice reference work on Beethoven packaged with the product would have been nice, but, if you're old fashioned enough to still like books like we do I guess you can always go and buy one.

RRP \$125

Our Price \$110

Bookshelf

- Dictionary, Atlas Thesaurus, Almanac, Quotations.

- Reference work for authors

- CD ROM

CD1795 Version 2.0

A set of reference works on CD Rom with some multimedia aspects. The reference works are the Concise Columbia Encyclopedia, the American Heritage Dictionary, Rogets Thesaurus (II), the World Almanac and Book of Facts, Bartlett's Familiar Quotations, The Concise Columbia Dictionary of Quotations, and the Hammond Atlas.

It has a search tool called a viewer which helps you conduct searches either by progressing down a menu tree, or by conducting word searches. You can save items to your hard drive. The multimedia aspects are sprinkled throughout. The encyclopedia has 27 animation sequences including a fascinating one showing how a CD works. Words in the dictionary are pronounced, and national anthems for countries shown in the atlas, played.

Help And Learning:

Being windows based it has on line help although it is fairly easy to learn how to operate it.

Documentation:

Only a 31 page mini booklet is included.

Comment:

A handy reference, perhaps more so if you are an American. A little slow given the CD ROM access times, but, useable.

RRP \$300

Our Price \$255



Cinemania

- Films and filmstars.
- Mini reviews, 19000 movies
- CD ROM

CD1798 Version 1.0

It has great possibilities this one. It's one of those things you need at a party when you can't remember the name of an actor or producer of a famous film. It has capsule reviews (one or two sentences) and the main actors of some 19,000 movies. However, it has in depth reviews and great detail on some 500 classics and 200 recent movies. There are stills, sound bites ("I am not an animal, I am a human being", from the Elephant Man) a full list of actors and credits. There are further synopsis of the careers of some 3000 stars along with portraits. You can do searches with your own criteria.

Comment: Great fun, now if only they would put in full detail on all 19,000!

RRP \$115

Our Price \$99

Dinosaurs

- Graphics and information for children and childlike adults
- Live action video and animations with roars.

CD1800 Version 1.0

A multimedia product to take advantage of the current craze amongst children for anything related to dinosaurs. This product has lots of levels in it. There are some reasonably well done animation and video sequences, some of which are pure entertainment, whilst others have a voiceover explaining very generally such topics as the Death of the Dinosaurs, their relationship to birds, and plenty of gory stuff about fearsome meat eating monsters. Then there is a more serious side. You can explore from various aspects or you can take one of the guided tours. There are many illustrations and information about the various dinosaurs, their environment their habitats, the periods before and after, as well as their extinction. There is a set of guided tours, such as through history, the most fearsome, flying and swimming dinosaurs, brain size and how and where bones are found. These tours present a series of slides with voice overs. Many of the slides are reused so the information is presented from various aspects.

Help and learning:

The free flowing nature of this presentation makes it easy for youngsters to use. Each screen has many points of interest which can be expanded with a mouse click.

Documentation:

Now it would be nice to get a quality illustrated book with it, but, I guess that's too old fashioned, so all you get is a couple of pages CD size on getting started. Disk space 8Mb.

Comment:

Excellent. My nine year old gave it an "A" by spending hours exploring it. You will need a sound card though.

RRP \$115

Our Price \$99

Encarta

- Funk and Wagnalls Encyclopedia
- Animations and sound bites
- Good searching facilities

CD1799 Version 1.0

A multimedia version of Funk and Wagnalls Encyclopedia. Whilst much of it is traditional text, there are numerous photos and illustrations, and fewer, but, excellent multimedia presentations on particular topics. Whilst being an encyclopedia, none of these are in depth, they give you a surprising insight in a minute or two of presentation. This way you can get a vague idea of Einstein's Relativity, or a general understanding of how refrigerators work. The articles themselves are well written and cross referenced with hot topics selectable with the mouse. You can search for information either hierarchically, by selecting categories and topics (Einstein is found under Physics, relativity) or accessing alphabetically. There is even a search Wizard which helps you select parameters for your search. There are some 6500 sound files 7000 pictures, 100 animations and 800 maps.

The information is presented as text and pictures in separate frames. The pictures change as the topics are browsed through. Extra pictures sound bites and animations are marked in the text and brought on by clicking on the icon. You can print topics and pictures for reference.

Areas of interest include Physical sciences, Life science, Geography, History, Religion, Social science, Art, language and literature, Performing arts and Sports. Each area is further broken down into many areas so that Physical science includes such areas as Physics, Chemistry, Astronomy, Palaeontology, Machines and tools etc.

Help and Learning. There is a guided tour showing you how to use the encyclopedia and a Wizard to guide your searches.

Documentation:

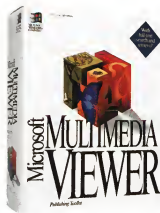
Getting Started 40 pages, Research Ideas 41 pages. Disk Space 5.5Mb

Comment:

Easy to use, but, the frame size is fixed so you can't blow pictures and text to fill screen. A useful general guide which should improve as new versions come along.

RPR \$599

Our Price \$499



Multimedia Viewer

- Authoring software for putting references onto CD ROM
- Tools for enhancing with graphics and sound.

CD1821 Version 2.0

An authoring program for CD ROM titles. This gives you the tools to create your own multimedia reference works. It has tools for the integrating of text with hyper links, sound, graphics and video into a single package. There is a project Editor from where you layout the overall files involved. The Project Editor gives you an overall control of the topics in your project. You can add and delete topics and multimedia attachments. It invokes Microsoft Word to edit text files in RTF format and from there you can invoke the Topic editor which can create and edit authoring elements such as hot spots, pictures and search attributes. So you have three levels of editing, the project (groups and topics), the Topic (hotspots etc) and the text level. From Word you call up the Topic Editor and select an appropriate element to insert in

the text. The topic will have paragraphs of text, graphics, sound, animation and video. Text is marked for keywords, custom fields and searchable phrases. You also can mark links to other topics. There is a Hot Spot Editor included. Palettes for pictures or groups of pictures can be edited visually by cutting, amplifying or fading sections.

The text retrieval engine is able to search on keywords, or do a full text search. The end user can set parameters to searching for words, phrases, Boolean expressions, custom fields, wildcards, data types, word stemming etc.. Hot spots can be added to text or pictures or you can add buttons similar to VCR controls for moving forward or backward amongst topics. It is easy to set up the now familiar Windows search utility where you type in a few letters and the search moves immediately to the keyword beginning with those letters. The interface is customisable with menus, button bars and scroll bars or (as there aren't any great visual tools for building these, you can use the standard interface supplied. All formatting produced in Word can be transferred to your title, including fonts, colours and paragraph formatting. Pop up information boxes and pictures can be allowed to position and size themselves automatically or you can specify both. You can open up secondary scrolling windows as well. Graphics can be placed within the text or along text and paragraph boundaries. You can add captions and copy or print. Colours can be set to automatically determine 256 or 16 and dithering can be added to 16 colour pictures. Either WAV or MIDI sounds can be played. Animation or video can be added along with a user operable controller as long as it conforms to the MCI (including Autodesk Animator clips). You can add word wheels, create a ranked search index, and subdivide into topics. You can select and design your own buttons and menus. You can make calls to DLLs or other Windows applications such as notepad.

The compiler provides both compression and optimisation for CD ROMs.

Help and Learning:

There is a quick tour Gallery as well as a more detailed Authoring guide both written with the viewer. There is also a help file for the Viewer API.

Documentation:

Getting Started 90 pages, Authoring Guide 260, Data preparation Tools, 100, Technical Reference 300 pages.

Comment:

This was used to produce Encarta and Bookshelf. The usage of it is reminiscent of Typesetting machines, prior to the involvement of the Macintosh. You write your scripts in the Word processors with various brackets lines and thingummies. Even the menus and buttons etc are described and invoked with typed commands. I guess in time these things will become more visual and automated, for now it's nose to the grindstone. Mind you the old CD-ROM is still a frustratingly slow device once you start pulling graphics, sound and video from it.

RPR \$765

Our Price \$665

Musical Instruments

- Instruments facts sounds and setting.
- Graphics and sound samples of each instrument.

CD1825

An introduction to some 200 musical instruments. Each instrument has a photo along with closeups of various parts. There is a brief history and notes on the type of music and groups of instruments it is played in. There is a sample of the sound of each instrument, often in various settings such as orchestral, jazz, rock etc. instruments can be seen in relation to their near cousins, or their geographical origin. There is information about various ensembles along with sound samples. Where excerpts are played they are named.

Help:

On line help.

Documentation:

Getting started 10 pages CD size.

Comment:

A handy reference for the musically curious.

RRP \$115

Our Price \$99

Soundbits

- Enhancement to Windows
- Adds interesting sound to commands and actions.

CD1835 Version 1.0

Clip art for the ears. A collection of sounds to attach to various windows commands such as open close etc. add a dramatic flourish with any one of 50 musical sounds, usually a couple of seconds of a particular instruments. (one riff). Cute. Disk space 1.3 Mb.

Also available with sounds from movies and cartoons.

RRP \$60

Our Price \$55

Windows Sound System

- Sound card and software for Windows.
- Proofreading
- Voice commands

OU4134 Version 1.0

This system is designed to give you voice in and out which can be put to many uses. There is a "Voice Pilot" which you can train to understand key words so that you can carry out commands in various applications. You spend some time training it to the sound of your voice. You will also need to train yourself to say words consistently. This is somewhat experimental at this stage as its responses are not always consistent. There is a proofreader which is excellent for checking numbers in spreadsheets. It constructs the numbers from prerecorded sound so it sounds similar to the numbers

on a telephone number information service. It works with Excel and Lotus for Windows only. You can also set it to read out the numbers as you type them in. It has various dictionaries with it for numbers, date, days of the week, money and various financial terms as well as being able to add your own.

You can create documents with voice annotation by simply inserting a sound object. This brings up the quick recorder and you enter your message. A small cassette icon (or an icon of your choice) appears in the text and clicking on this will read back your annotation.

The editor gives a visual representation of the recording. You can edit your messages, removing blank spots, or adding background music by cutting and pasting. You can also add special effects such as echo, fade in/out, filtering and speed. The editor gives you control over sampling rate from 11KHz to 44KHz and compression rates from 4 to 16 bits per sample. This gives a recording rate of from 5 to 88k per second. Recording and playback volume can be adjusted via the software.

The kit consists of a 16bit card with inputs for mono and stereo, outputs for stereo and a headphone. There is a set of headphones and a microphone included. The microphone can be keyboard mounted or attached to your lapel. The board installs easily setting its own interrupts.

Help and learning:

There is a quick tour to guide you through the various applications.

Documentation:

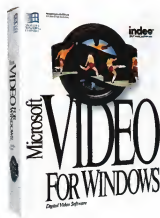
User Guide 200 pages. Disk Space 7.5Mb.

Comment:

Will provide sound for your Windows games and applications, and is a good experimental tool for voice recognition. Compatible with the Adlib card under DOS.

RRP \$425

Our Price \$399



Video

- Video software for Windows
- Add clips and sound to documents

IA1602 Version 1.

This is Microsoft's introduction to full motion video. It enables you to add short video clips to any OLE aware application. Certain compromises have been made to get the video on board in a reasonable form. Because of the massive amounts of information required, normal video is some 30 frames per second and several bytes per pixel for full colour, compromises have been made to reduce the workload. Video information is compressed in one of several formats depending on your hardware, the colour range is reduced to a palette suitable for the type of scenes captured, and the display rate can be reduced to 15 fps. Microsoft have introduced a format AVI which interleaves each frame with the sound so that you get a reasonably consistent sound with occasionally some hesitation in movement when playing from a CD ROM. To work from hard disk you will need large amounts of storage as an average 15 second clip takes about 2Mb. With the aid of a video capture board (such as the Video Blaster) you can roll in video from your video camera or VCR. Then you can select various parameters such as a palette (this can be done automatically), audio sampling, frame size etc. With the edit facility you can cut and splice sequences, and select one of various compression

techniques such as MS Video 1, RLE, Intel Indeo or Cinepak Codec, and select an audio interleave as well as match data transfer rates. There are some minor editing tools for touching up images, adjusting the palette and editing the soundtrack. You can get greater performance by improving your video board hardware such as the Intel Action Media II.

In use you can add images to your spreadsheet but, the images tend to be small in order to get reasonable performance on standard hardware (5cm x 5cm). There are many sample clips on the CD ROM supplied with the software with subject headings such as space, animals, children and transportation. There is a Video Browser which enables you to check through the images quickly. Sound output is via a sound card.

Help and learning.

There is a sample display of a clip, and Windows online help for each of the various editors and playback facilities.

Documentation:

User Guide 235 pages. Disk space 2.5Mb

Comment:

Fascinating experimental tool, could be useful for presentations or applications, but you will need excellent hardware to produce anything with commercial value.

RRP \$320

Our Price \$270

Flight Simulator

Unseen at the time of writing. This version has significant enhancements which should continue its success of the past being the biggest selling game for the PC. It offers you several planes to fly with authentic characteristics, instrumentation and navigation. With the ability to purchase addons there is a vast array of modifications you can make to the aircraft and its surroundings.

New Features:

You can now travel worldwide. There is a new latitude and longitude system for locating destinations and current positions. A helping hand is given to

novices learning to land. The sound has been improved to take advantage of popular sound cards. The scenery expands in detail as you approach and the sky has been improved with gradients haze and mist. Sunrises and sunsets can be seen and photorealistic graphics have been added from satellite photographs including runways. The instrument panel has been made more realistic and the interface models the Windows interface. There is control over the type of weather encountered and over other traffic. It now takes up 9Mb.

RRP \$95

Our Price \$80



Access

- Database for end users and programmers.
 - Visually implemented for ease of use.
 - Client Server operation
- D22254 Version 1.1

This has been our fastest and biggest selling product ever. Its introductory price had a lot to do with it, but, its ease of use helped.

It can be used at several levels of expertise. You can easily make up simple databases for cataloguing, mailing lists etc. More complicated databases can be made up with the use of macros. For true application programming there is the Access BASIC programming language, a form of Visual Basic with database extensions.

To create databases you can use the various editors to create tables, forms and queries for simple user interactive operation. For more sophisticated programming you can use macros" or ACCESS BASIC. Macros are actually created by selecting from a list of some 40 commonly used commands and actions to which you can add parameters and qualifiers. The BASIC is used for creating functions and procedures.

Tables are easily created using the table editor. You can choose field types from text, memo, number, date/time, currency, counter and yes/no. Properties such as size validation rules and duplicates allowed can be selected. You can enforce referential integrity. Queries are easily set up. Tables are dragged into the editor and fields selected. Joins can be implemented to limit the search data. Criteria for searching can be entered in expression form. Queries can be run in background. You can also enter SQL commands directly. Interface design is carried out in the form editor. This operates similarly to the interface design in VB. You select a resource such as a menu, list box, scroll bar, button or dialogue box etc. These are then positioned on the screen and parameters and design features added. Reports are constructed in the same way using either a table or a query as the dataset. You can add any expression you wish to manipulate the data. You can include graphics sound or even in certain circumstances, video.

Access has good SQL facilities. You can connect via the Open Database Connectivity Driver making it an SQL client. It can also work with Paradox, dBase and Btrieve files. It can import data from FoxPro version 2.x, dBASE III+, dBASE IV, Paradox version 3.x, Lotus 1-2-3 version 2.x, Lotus 1-2-3 version 3.x, Lotus 1-2-3/W, Microsoft Excel version 2.x and later. You can use Access as a single user, multi user, or as a client server with its own or other databases.

Functions: Banded report writer, embedded reports, filters, graphical

query by example, SQL query interface, Integrated development environment with debugger, syntax checking, security passwords, drag and drop (ubiquitous). 32,000 tables, 254 open tables, 255 fields, 16 tables per query. Microsoft Graph has been added in as an afterthought for those who don't own a spreadsheet.

Help and learning:

Aside from having excellent windows style help with a full language reference and examples there are the "Wizards", no hats, just some pre formatted outlines for common tasks such as creating forms with various looks. In addition there are cue cards which will single step you through a number of operations.

Documentation:

Instant Access 30 pages quick tour for the computer disadvantaged, Getting Started 175 pages, Graph 115 pages, User's Guide 713 pages, Introduction to Programming 165 pages and Language Reference 530 pages. Disk Space a mere 12 Mb.

Comments:

Excellent facilities for anyone (almost) to knock up some simple good looking databases. Also has sufficient depth to create quite major applications. Only annoying habit is the inability to find out what buttons on the toolbar are by passing the cursor over them. The only way to find out quickly (for those of you similarly memory impaired to myself) is to push the button, which unfortunately can take you to places you don't want to be.

RRP \$695

Our Price \$575

Access Distribution Kit

■ Royalty free distribution.

■ Protects the code.

D22253 Version 1.1

A runtime environment for Access applications. After you have created all the tables, queries, forms, reports, macros and BASIC modules, you simply transfer the database file to the runtime environment and you can distribute the application. The design facilities are not in the runtime environment so that users cannot interfere with the running of the program. Neither can they change the security features. A help compiler is included so that you can produce a customised online help file for the application. It also includes facilities for a setup program for installation. If you love those Wizard things there is also some detail on creating your own.

Documentation:

Distribution Kit Guide, 60 pages, Help Compiler Guide 170 pages, The Secrets of Access Wizards (Really!) 32 pages. Disk space 2Mb.

RRP \$795

Our Price \$675

What is Client Server?

When accessing a database on a network you would normally have the database on the server and the accessing program on the workstation. This generates an enormous amount of network traffic as accesses and queries are carried out across the wire. With a client server arrangement, only the interface is on the workstation, all the database work is carried out on the server, hence only results travel the wire. This means splitting the tasks between the workstation, the server interface and the database itself.



Cobol

■ Hugely popular language over the years.

■ Compatible with many mini and mainframe versions.

L21770 Version 5.0

This Microsoft optimising compiler is ANSI 85 certified. It is a native code compiler providing fast execution. COBOL 5 provides a development environment for DOS OS/2 and Windows systems applications. In addition, it allows you to develop and maintain applications on a personal computer and port them to a mini or a mainframe, or vice versa.

It provides source code compatibility with a number of COBOL dialects allowing the professional programmer to compile existing software from other systems, or develop in a familiar dialect and either compile locally or port back. Standards provided include ANSI 74, ANSI 85, IBM VS II, DOS/VS COBOL, IBM OS/VS, RM/COBOL, DG Interactive COBOL, Microsoft COBOL v2.2, Micro Focus COBOL/2 version 2.4 and RM. The ANIMATOR debugger allows the viewing of source code whilst it is executed. This version comes with the Programmer's Workbench described above, and debugging can take place at both the Codeview level and the ANIMATOR. Support is provided for shared files and records can be locked so network applications can be easily implemented. New extensions link

COBOL to Presentation Manager and client server SQL systems. The Rebuild facility allows the recovery of corrupt indexed files, reorganisation, and conversion from other data file formats. There is a screen painter with a wide range of capabilities for field specification and attributes. The common communications interface allows COBOL programs to communicate with each other via a variety of networks and communications media. Protocols provided are NETBIOS, Named Pipes, Novell IPX and APPC. The package includes, a linker, an incremental linker for OS/2, a library manager and the new Nmake facility. The QuickWin library is included for producing rough and ready Windows programs. Or you can create DLLs and use Visual Basic as a front end. It also has an image editor for creating icons, cursors and bitmaps etc and a dialogue editor for creating dialogue boxes under Windows. For DOS a new PANELS facility helps with the creation of windows, menus etc. A DOS extender allows up to a 16Mb memory space. It can handle Btrieve files and has embedded SQL support for SQL server, allowing you to create client applications.

Help:

There is a short tutorial on the use of the Programmer's Workbench and on line help.

Documentation:

Getting Started and Overview 50 pages, an Operating Guide 500 pages, Language Reference 1 & 2 700 pages, Advanced Topics and Utilities 280 pages, Compatibility Guide 200 pages, Pocket Guide 100 pages and Error Messages 100 pages. Total disk space 8Mb.

Comment:

This compiler is produced by Micro Focus. Whilst support for Windows is there it is not easy to use to produce Windows programs. Their suggestion of using VB as a front end looks pretty appealing if you're working in Windows.

RRP \$1395

Our Price \$1170

Delta

LU4990

(Sight unseen) A version control system for both DOS and Windows, either in a Network or stand alone version. Keeps track of all versions of source code, along with times and authors of changes. Designed to work with Visual C, Visual Basic and FORTRAN, it will also work with other development environments.

RRP \$780

Our Price \$650

Device Driver Kit

■ Extended tools and information for Windows Programmers

LU5201

Provides documentation, tools and sample source code for producing device drivers. It also provides additional information to the SDK for developing Windows programs. This kit is designed for purveyors of hardware to create the interface between the hardware and Windows. As such it comes with sample applications of the major classes of device drivers and a full list of extra functions. These are communications devices, displays, keyboards, printer drivers, multimedia, networks, pointing devices, printers, and sound.

The Video drivers are in 1, 4 and 8 plane drivers for 2, 16 and 256 colour support. The drivers support device independent bitmaps. In addition there are examples of the use of the Palette Manager. Grabbers for the various displays and the proportional system font have been included.

The driver source for the Laserjet III and Postscript printers as well as some dot matrix and colour raster printers. The HP driver shows how to support dynamic downloading of TrueType fonts. The Postscript Driver shows how to map TrueType fonts to type 1 fonts and how to download dynamically. There is also a generic text only driver.

There is a Universal printer Driver, along with mini drivers for HP series II, Epson

9 pin/24 pin, IBM Proprinter and HP Paintjet.

The keyboard driver and the Microsoft mouse drivers are there, but, the mouse driver is a trimmed version of that which ships with Windows.

The communications drivers use INT31 and will drive serial and parallel ports.

Network drivers are for MS-Net. (what did you expect Novell?)

There is a full suite of compatibility test programs for printer drivers, display drivers and network drivers.

A large number of Virtual Device sources are included for displays, drives, ports, netbios etc.

The Multimedia drivers include Adlib, Joystick, Videodisc Player and Soundblaster.

There is an editor for PFM and PCM fonts, a Postscript tool for creating Printer Description Files, as well as MASM and Link for 386 Virtual Devices, and an Add Header and Mapsym utility.

Help and Learning:

A reasonable set of online help in both the Adviser and Windows Help formats. A considerable amount of sample source.

Documentation:

Installation and upgrade Guide 56 pages, Device Driver Adaptation Guide 591 pages, Multimedia Device Adaptation Guide 150 pages, Minidriver Development Kit 171 pages, Printers and Fonts Kit 100 pages. Missing in action, the Virtual Device Driver Adaptation Kit, hopefully in a future release. CD ROM 54Mb or 27 HD disks.

Comment:

Not only for the hardware people, there is a wealth of information and techniques in here, the Virtual Device Drivers can have other applications than hardware and there is a swag of information on Interrupt 2FH services and notifications which MSDOS drivers and TSRs can use to interface with windows.

RRP \$815

Our Price \$695



Foxpro

- Xbase database for both DOS and Windows.
- Excellent speed with queries.
- Good Windows tools.

D22110 Version 2.5

This database environment is for developers with serious applications in mind. With Foxpro you can develop for both DOS and Windows, and real soon now, for the Macintosh and Unix with substantial carry over especially amongst the GUIs, less so from DOS to the others. The language used at the programming level is Xbase so the transition from dBase is relatively simple. It reads and writes standard DBF formats, and can import many others. The database has multi user abilities operating as a file /server database as opposed to a client server.

The development environment has been well thought out providing you have some knowledge of the dBase way of doing things. There is a view window for the direct entry of commands, conversely when you use the various builders the code generated is placed in the view window.

Setting up a new table is simple using a dialogue box with fields easily defined as numeric, date character, memo, picture or general (for OLE).

Screens are created graphically and can include bitmaps as backgrounds (Windows only). The various parts of the screen are simply selected from a

graphical toolbox (a menu under dos) and sized and placed. You can select entry fields, push buttons, radio buttons, check boxes and pop up lists etc. You can attach small code segments and validity checks to these making event driven programming easy. A menu editor makes adding menus simple with procedures and submenus easily attached. The query by example tool lets you construct complex queries including many joins by selection from a table. The QBE generates its own SQL statements from the process, which can be seen in the view window. There is a Graph Wizard for producing Excel like graphs from query outputs. The report writer can be used easily with the QBE to give complex reports with excellent formatting capabilities under Windows. Objects such as a field or box can be dragged into position. The report writer is banded (title, detail, summary). You can add user defined functions to output fields.

The differences between DOS and windows are the inherent functions of Windows itself. Thus the DOS version will not do DDE, or OLE, or screen fonts etc. There is a cross platform transporter which will move DOS versions to Windows and vice versa. You can also insert conditional compilation statements for particular versions.

You can import and export many formats. With standard dBASE files Foxpro automatically adds its own indexes. For other file formats you have to specifically import them before conversion. File formats include FW2 MOD, PDOX, RPD, WK1, WK3, WKS, WR1, WRK and XLS.

The excellent speed produced by Foxpro especially on complex multi table queries is due to the proprietary Rushmore Query Optimiser. In many cases rather than access and drag across the network whole tables, Foxpro only takes the indexes and then calls the data as required.

In the Windows version you can take advantage of DLLs via the Foxpro Link Library. As well as having file access

routines of its own it provides a way into the standard Windows DLLs such as USER and GDI. There is full support for OLE and DDE. There is a pretty code maker for laying out code with indents etc.

Capacities Records per table 1 billion, 64k characters per record, 254 chr per field, memo fields unlimited, 225 fields per table, 225 tables open at one time.

Help and Learning:

Sadly there are no interactive tutorials I guess the more professional programmers are expected to use this database. There is a tutorial in the book on the various tools and parts, along with sample files.

Documentation:

User Guide 450 pages, Getting Started 250, Installation 55, Developer's Guide 480, language Reference 1200, Master Index 54 pages. Disk space 17 Mb DOS or Windows.

Comment:

For those who have been programming in dBASE or other variants of the Xbase "standard" this is the quickest way to convert to Windows. You may spend some time making DOS screens looking respectable under Windows. There is however, sufficient speed in this version to warrant the changeover, the only slowdown being the drawing of the screens themselves.

RRP \$795

Our Price \$670

Foxpro Distribution kit

- Royalty free distribution
 - Creates EXE files.
- D22113

Foxpro compiles at run time, but does not produce a stand alone executable. To distribute your applications as EXE you will need a distribution kit. Available in both DOS and Windows versions, the kit provides the ability to create EXE files and distribute them royalty free. The kit also has a SETUP Wizard for the easy

creation of an installation program. Also included is a Help Compiler, an online version of the Windows Interface Design Guide and a runtime version of Graph.

Documentation:

User Guide 40 pages, Help Compiler, 170 pages.

RRP \$795

Our Price \$670

Foxpro Library Construction Kit

Cat.D22109

If you wish to create external libraries in C for extending the abilities of Foxpro, you need this kit. It lets you make calls to the external libraries hence allowing you to connect hardware directly to the interface or add new capabilities. These extended libraries can be distributed free of royalties.

Connectivity Kit (Coming Soon)

Provides access to SQL Server via the SET LIBRARY TO command. Not for the casual user.

RRP \$795

Our Price \$670

Fortran

- Language for scientific applications.
- Compatible with many other versions.

L21845 Version 5.1

Built on the old Programmer's Work bench, the Codeview debugger, the Microsoft Editor and a fast linker are included. It has the full environment for building projects, debugging and Browsing source cross references with the Browser. FORTRAN 5.1 is GSA-certified as being an error free implementation of ANSI 77 FORTRAN. It also offers full OS/2 support, code optimisation identical to that of Microsoft C, inter language calling, extensive math options, memory model support, and extensions compatible with IBM VS FORTRAN and DEC

VAX(R) FORTRAN. This compiler is to ANSI 77 with extensions for VAX, NAMELIST, OPEN append, DO WHILE, IMPLICIT NONE, INCLUDE and ! to end of line comments, and selected 8X extensions such as CASE, array operations, VERIFY, SCAN, INDEX, and LEN_TRIM. Microsoft extensions include allocatable arrays, access to command line arguments, language switches to flag non-VAX or non-SAA FORTRAN extensions, conditional compilation, the DOUBLE COMPLEX keyword, a random number generator, and new intrinsic functions. Running under OS/2 you can address up to 16MB of memory and create multi-threaded programs as well as Dynamic Link Libraries and PM interfaces. A graphics library and three maths libraries come with the package. You can generate three memory models, NEAR, FAR and HUGE. There is support for 8087/80287 co processors and emulation. Numeric types include full 80 bit, BCD and a compact alternate math library where high precision is not needed. Very large memory models are supported for OS/2. Modules can be linked with other Microsoft high level languages and the Macro Assembler. There is a QuickWin resource library for producing output to Windows, and you can add graphics as well, however, there are no high level tools for producing Windows programs.

Functions: Arrays and COMMON blocks larger than 64K; separate module compilation; full support for overlays to utilise restricted memory; Multi user support with file sharing and record locking; Character sub strings, Library manager, linker and utilities.

Help:

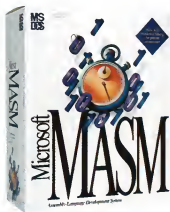
On line help

Documentation:

Installing and Using manual of 60 pages, Environments and Tools 660 pages, a Reference 530 pages, Advanced Topics 360 pages. Total Disk Space 6 MB

RRP \$240

Our Price \$210



Macro Assembler

- System level language
- Good documentation.
- Macro facilities and many timesaving directives.

L21949 Version 6.1

Assembler is the ideal way to speed up slow parts of your higher level languages, or to produce small stand alone applications, not to mention systems programming. The macro assembler provides the tools for carrying out the most basic level of computer programming. It provides the ability to assemble into executable files the mnemonic instruction sets of the 8086 /8088 family of processors. It can handle all processors in the range 8088, 8086, 80186, 80188, 80286, 80386 and 80486, in real and protected mode. Programs created can run under DOS, Windows or NT. The assembler handles both segmented and non segmented memory models.

Simplified segment directives make it easy to set up modules with a few standard statements for memory model, (small, medium, compact, large, huge, tiny and flat), data stack and code segments. Complete control over segment directives is also available.

There are a significant number of higher language features in the macro assembler. There are decision structures available for controlling program flow including the .WHILE, .REPEAT, .IF,

.ELSE and .ELSEIF. The stop in front differentiates them from the assembler directives of the same names. Data declarations now use the BYTE WORD and DWORD directives with their signed counterparts SBYTE, SWORD and SDWORD. You can build data structures and unions. For floating point calculations you can select either the math co processor or a library of emulation routines. The directives for their data are now REAL4, REAL8 and REAL10.

Macros can be of various kinds, text macros, procedures (one or more statements, repeat blocks, functions and predefined functions). Macro parameters can be REQUIRED or defined to a default value. Symbols can be defined as local or global. Predefined functions include directives for manipulating text such as INSTR, SIZESTR and CATSTR.

Procedures defined with the PROC directive can generate automatic prologues and epilogues for procedures, taking care of pushing and popping registers and setting up a stack frame or space for variables and parameters. When the procedure returns the stack is cleaned up. You have the option of creating macros for customised epilogues and prologues. Using procedure prototypes and INVOKE will enable general handling of details for various memory models. This results in the generation of the correct instructions to push the arguments on the stack and the call to the procedure.

The new assembler assembles and links in one step (hence it is now called ML). This is now an n-pass assembler. Source is read only once from the disk and as many passes as is necessary to resolve all calls and jumps into the right number of bytes is made, that is there is no padding with NOPs required. The assembler can automatically extend short and near unconditional jumps when they are out of range into long jumps where necessary. It is a 32 bit application.

New scoping rules are more like those in C. All symbols are local by default and only global if specified (by declaring it

with two colons). Procedures and functions are global by default.

The assembler can generate list files with instruction timings. Hence fine tuning for speed of execution can be easily carried out.

To handle old code there are Option directives for specifying 5.1 compatibility. You may still need to make some changes to code. There are DOS extender versions of the assembler and linker for large programs. They do, however, run slower. The H2INC utility converts C header files to include assembler files.

The advanced Linker will create overlays and link modules developed in multiple languages, with 1 to 1024 segments specified. The Codeview debugger is more fully described in the C & 0 description as is the Programmer's Workbench. It comes with the editor, the on line adviser, NMAKE. There are substantial supports in the Microsoft languages for mixed language solutions, linking object modules created in C or Fortran with assembler language modules. Hence you can take advantage of the higher level languages whilst getting the critical parts running correctly or quickly with the assembler. The NMAKE facility creates a file keeping track of the dependent files and recompiles only those modules which need recompiling.

Help and Learning:

The PWB has its own on line help for the Assembler. There is also a command line version of Quick Help. The manual runs through examples of creating DLLs and TSRs, revealing heretofore untold secrets and mysteries. The Mixed Language Programming Guide gives easy to follow instructions on how to call assembly language routines from each of the Microsoft Languages. There is unfortunately no tutorial. You also get sample template programs on disk that can be modified to produce your own code. It now provides considerable information on Windows programming

Documentation:

Getting Started, 40 pages, Programmer's Guide 400, Reference 180, Environment and Tools 900, Assembler Inside and Out (Tutorial) 540 pages.

Comment:

Now a much faster animal than before. Being n-pass it no longer generates "phase error" messages when sorting out jumps. "New features" in this version include the deletion of any reference to that competitor OS/2. Sounds like IBM of yore.

RRP \$320

Our Price \$295

Test

■ Software Tester for
Programmer's scripted test
routines

■ Visual Interface
LU5260 Version 2

Test consists of three environments. Test Driver is a basic like language for writing test procedures. It consists of "Fast test" a set of the BASIC subroutines which carry out commonly used test functions and the Test DLLs providing the API functions for calling from test BASIC.

Test driver has a script editing window and a Viewport window for outputting data to and from the program via PRINT statements so that you can monitor its progress. You can work with multiple scripts at one time, and run them in multitasking mode. Test scripts or programs can be run from the test driver, or single stepped. There are a series of tools in the test driver itself. Get xy allows you to get the coordinates of an area of the screen and paste them into your script. They can then be used for the screen comparison function which enables you to use a set area of the screen and compare against subsequent snapshots of the same area. There is a keystroke and mouse recorder which will record actions for replay to an application. There are options for checking array bounds and memory pointers so that these potentially fatal errors can be eliminated early in the test process.

There are two utilities TestScr and TestDlgs, one for checking non control areas of windows and the other for checking controls and dialogues.

TestScr is a facility for capturing screen images for saving to files or the clipboard, and comparing. It can be invoked whilst running any application, and you can specify the area to be captured either by entering xy coordinates or by clicking on the corners. For comparison two screens can be overlapped, showing up only the differences.

Test Dialogues allow you to capture and compare control definitions and compare objects. It will match objects located on different screens in different locations.

Categories are controlling programs, logging data, managing files and directories, controlling windows, testing dialogues, controlling the mouse, testing menus, entering keystrokes and using the clipboard.

The set of test DLLs which can be called from any program provide the API function calls. These are in four categories, Test control, test dialogues, testscreen and test event.

The new version, (not seen at the time of writing) lets you visually build scripts using icons similar to Visual Basic. It can test in Client Server situations on NETBIOS networks. A new Smart Events function treats a mouse click as an event rather than as a set of coordinates and a mouse operation.

Help and Learning.

The system has on line help in the windows format. There are no tutorials, but, then you would hardly expect novices to be using this. The help has the useful feature of always on top, which is great when you want to type bits and pieces from the help topic, it doesn't go away as soon as you start in the editor. Should be compulsory in all Helps. There is a general discussion of testing and testing strategies.

Documentation:

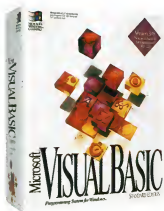
There is a 600 page manual. Total 1Mb.

Comment:

For those who program, this should be part of your toolbox. Once test procedures have been instituted they can be automatically used after modifications and at each stage of the development. For those who commission programs get this and go get them.

RRP \$595

Our Price \$499



Visual Basic Windows

- Development Language for Windows.
 - Easy to use for inhouse applications.
 - Suitable as a front end for distributable applications.
 - Visual makeup of user interface.
- L22513 Version 3.0 Std.

L22514 Version 3.0 Pro

A programming environment for creating Windows applications which is object oriented and event driven. This language has been hugely successful as a Windows development environment. An excellent way to learn to develop Windows applications, it is also used by many developers as either a complete solution, or a quick way to develop a front end for an application. With the addition of database facilities it has become a blockbuster tool for in house programming.

The program operates in an environment which has several parts. In the form window, you design the look of the windows for the user with the set of controls provided. These are simply dragged and dropped into place. The controls include the usual things you see in a Windows application like buttons, text entry boxes, picture frames and list boxes, scroll bars, etc. and recently even a toolbar. These objects then can be named and their properties determined such as control name, text, height, width, colour, position, etc. Code is attached, invoked by events such as a keypress or a mouse button down. You can create a series of forms which can be called on the screen one at a time or all at once. You can do child windows with support for the MDI. In addition code is added in modules for the general tasks required. Procedures can be global or local. There is a neat icon viewer and editor along with a million icons (Arrows and pointers, computers, etc.) to include in applications.

Data types include integer, long integer, single & double precision, currency and string. Variables are closely scoped. Local variables, form level variables and global variables are available. For graphical effects, VB can drop in pictures in BMP, ICO and WMF formats. These can be added at design time or run time. Debugging includes standard BASIC features such as breakpoints, watch variables and expressions. You can single step, edit and continue, and examine property settings. Data files can be accessed sequentially, random or binary. You can create DDE client and server links. It has OLE 2.0 linking available. This allows you to get at the functionality of other applications (such as the spell checker in Word).

The database takes the form of DLLs from Access providing the database engine and functions that come with that program. Hence you can operate on data from a number of sources, such as Foxpro, Paradox, DBASE and SQL Server. There is a data control for

opening databases, and a number of the controls can be "bound" to a database as they are aware of tables, records and fields. The professional edition has eight of database objects included in its language structure for detailed control of data. There is a data manager application which can create and set up databases easily. You simply select the tables fields and field properties from a dialogue box.

The professional edition comes with an extra 23 custom controls including "masked edit", "messaging" via MAPI and "Communications". There is a banded Report Writer for database work supplied by an outside Vendor. The latest version of the Help compiler is included as well as a Setup Wizard to create easy end user installation programs, a set of ODBC objects allowing access to SQL databases and a Custom Control development guide (you also need C and the Windows SDK to create your own custom controls.

Help:

VB comes with a step by step tutorials and sample code to give you a quick idea of what to do and how it works.

Documentation:

Programmer's Guide 685 pages, Language Reference 500 pages. VB Professional has Professional Features 1 800 pages and 2, 220 pages Disk Space 20Mb

Comment:

The usability of this language is excellent and is probably the best way to get to know your way around Windows. It is the biggest selling Windows programming language. The language has extensibility via after market custom controls and DLLs

Pro. RRP \$780 **Our Price \$660**

Std. RRP \$320 **Our Price \$269**

Visual Basic DOS

- Successor to QuickBASIC
- Interface similar to Windows version.

L22512 Version 1.0 Std.

L22511 Version 1.0 Pro.

After the success of Visual Basic for Windows, this version has been released, presumably to get us in the mood for the long predicted death of DOS. The main advantage is the ability to quickly create user interfaces in a standard way. This means you have to get used to event driven programming instead of procedural. The forms manager lets you quickly paint or manufacture your screens by dragging and dropping the components into it. The components include the check box, a command button, scroll bars, picture box, text box, file list, list box and more. You pick them from the list, place them on your form which represents your current window, and place them in the appropriate spot. You size them by pulling on the handles and specify their attributes. They are given names, text to appear on them, and colour. Then you specify an action based on data entry in the form of keystrokes, mouse clicks or both. This code then represents the events associated with the form. Procedural code or the logic of the program is written in modules separately. This all sounds easy, but it may take a little reorientation if you've been programming the other way for a while. The differences between this version and the Windows version are to be found in its lack of graphics screen handling, (forms are generated as text screens, [you can do graphics, but it doesn't come as part of your user interface]) and some minor language differences. Other differences include the absence of the Access database engine and some custom controls which don't translate between the two. Custom controls are just extra components created by third party vendors or yourself to do specific tasks. The professional version largely correlates with the Basic 7 in that it has the ISAM database engine. The compiler is optimising for 386/486 and you can do overlays either from expanded memory or disk. There is a fast maths library for

when there is no coprocessor, a charting facility, and a kit for developing custom controls. Unlike the Windows version you do not need the C compiler and the SDK to create custom controls.

Portability; you can apparently move your BASIC programs into this environment and just recompile as long as you haven't done anything too tricky. Similarly, you can transport up to Windows, but you need to be a bit cautious as there are a few differences.

Help and Learning:

There is a good introductory interactive tutorial and on line help.

Documentation:

Programmer's Guide 650 pages, Reference 490 pages. Disk Space 3 Mb

Comment:

A pleasant way to start into Windows mode programming whilst still enjoying the speed of DOS, especially if you have an old clunker.

Pro. RRP \$765

Our Price \$645

Std. RRP \$295

Our Price \$250

The ICs of software.

For years now since object oriented languages came into vogue the talk has been of the "software integrated circuit". The functional building blocks available in the electronics industry, from which any circuit with any function can be constructed. Until recently this has been an elusive proposition, with many available compilers and environments, and the libraries themselves having functions which are difficult to use, obscure in their intent and poorly documented. Now with the popularity of Visual Basic as a development tool, the Visual Controls seem to be fulfilling those earlier expectations. A whole industry has sprung up with programmer's producing controls and selling them. Now that they have been added to C they may become ubiquitous. Programming is starting to resemble Lego.



Visual C++ Professional

- C++ Development
 - Foundation Class Libraries
 - Windows SDK Included
- L21661

Well overdue in this form the new C is at last a Windows hosted one. There are significant other improvements too in the form of Wizards to implement common tasks and an updated set of the class libraries.

The Visual Workbench is the heart of this development system. From there you can manage projects, browse source code, debug and edit resources. Windows hosted unlike the old PWB it provides an easy to use method of creating applications. The editor doesn't have a lot of features but, is a workmanlike tool providing colour syntax highlighting and multiple undo-redo. The project manager takes care of creating a framework for your application setting up all the files and directories as needed. The AppWizard uses the MFC 2.0 class libraries to generate a skeleton program. When creating this skeleton you can select whether you want context sensitive help, MDI, OLE, Toolbar, printing and preview or any custom VBX controls. It creates new directories, sets memory models and environments, creates all the files source and resource related to a project.

The ClassWizard creates new classes and maps messages and controls to class member functions and variables. You select a base class, name your new class and the source files along with the appropriate declarations and implementation code are created. It also makes the handling of data to and from your dialogue boxes simple and includes data validation rules.

The Browser lets you cross reference and move to symbols easily. It creates a database reference file of all symbols showing you relationships between modules, constants, macros, variables, functions and classes.

The new Appstudio lets you create resources and together with Classwizard and the MFC attach them to code. This is an excellent resource editor. You can edit the appearance and behaviour of common user interface objects. You can easily create and setup menus, dialogue boxes, accelerator tables (shortcut keys), bitmaps, cursors, icons. VBX custom controls conforming to specification 1.0 can be incorporated.

For Windows programs there is an integrated debugger in the VWB which will handle most tasks. The debugger lets you set breakpoints, single step, trace and even exit out of routines while tracing. For debugging DLLs you can invoke the Codeview debugger.

The Codeview debugger comes in a Windows or DOS version Codeview has several windows for debugging. The source window has the current executable code. You can set break points, single step and switch between source and output screens. You have a large range of options including trace (speed) animate, go address etc. The watch window shows the values of variables and expressions. Values can be modified. The local window lists the values of all local variables in the current or other specified scope. The memory window dumps the contents of memory. The register window displays the state of the registers, which can be edited. There is an 8087 window to show the contents of any co processor registers, or the

software equivalent. It can load itself into extended memory and can remote debug via the serial port. There are two versions of Codeview on board, one for working with Windows and one for DOS.

The compiler is an optimising one. It is fast and produces optimised executable code. You can optimise for speed or size. You can generate inline code for faster functions. You can use P code which will produce a small executable file by linking in a 10k interpreter. This slows things down somewhat, but, produces very compact code. You can turn the P code on and off with statements in your source code so that sections which need to be fast can be left out. Precompiled headers can be used for faster recompilation so that only changes beyond a specified point are recompiled.

The new version of the Microsoft Foundation Classes library can save a substantial amount of programming. It has a Document/View architecture which can set up an application to handle disk based data files, display them and provide multiple views precoded for you to add your application code to. It can even take care of printing and print preview. Architecture classes include Windows Application, Command related and Document/View classes. Visual classes include Windows, View, Dialog, Control, Menu, Device Context and Drawing Object. General Purpose classes include File, Diagnostics, Exceptions, Collections, Miscellaneous Support. OLE classes include base, client, server and exception. Classes for both DOS and Windows are the include diagnostics, file handling, exception handling and collections classes.

Help and Learning:

All help is now in the Winhelp format with the exception of Codeview. Viewers have been added to the technical notes which let you select the appropriate note and launches write with that note loaded. The MFC notes have been consolidated into one help file. There is a C++ tutorial in the manual which assumes you have knowledge of C. There is also step by step guide to building a sample

application. It assumes however, that you have a good working knowledge of the Windows API and C++. A large number of sample programs are included.

Documentation:

Programmer's Guides (C++ Tutorial, Class Library, Programming Techniques) 770 pages, User's Guides (Visual Workbench, App Studio) 435, Professional Tools (Programming, Codeview, Command line and Source Profiler) 670, Class Library Reference Volume 1, 1174, C Language and C++ Language Reference Volume 2, 760, Run-Time Library and iostream Class Library Reference 840, Index 292 pages. Most of these manuals are actually 2, 3 or 4 manuals bound together, so there is not a proliferation of books laying around.

Windows Sdk

Visual C++ Professional comes complete with the Software Development Kit as one large package.

The SDK is a set of libraries, header files, tools and documentation for creating Windows based programs. It has an array of tools for use in developing an application, and an impressive array of documentation on the Windows API functions and programming techniques.

The main Windows DLLs are described in detail and programming in relation to these discussed. These are the graphics (GDI) functions such as text manipulation and bitmap handling, System services (KERNEL) such as memory management and file handling, and window management (USER) for processing messages, creating and manipulating windows. In addition there is an extensive discussion on the extension libraries for such additions as common dialogue boxes, OLE, DDE, drag, drop, tool helper and floating point. Techniques for adding to Control Panel, File manager, and network applications are also described.

The tools provided are many and varied. There is a version of Codeview for working with Windows applications. Similar to Codeview for DOS it includes

the additional features of being able to track segments as they are moved in memory by Windows, dereferencing of memory handles, and has some windows specific commands for display of local and global heaps, modules, watch for messages and kill an application.

The Dr Watson diagnostic tool can be configured to record system settings, registers, memory usage etc. at and parameters at time of application failure. It can be configured for various pieces of information to be recorded, and can even be set to allow an application to continue after a fault.

There is a debugging version of Windows included which has the ability to generate diagnostic messages when a fault occurs. Messages can be logged to a utility window, to a second monitor, or to a com port.

This version of Windows contains the Toolhelp library. This library has a series of functions to return information about the system. This has been included to assist the development of tools. You can access internal windows lists such as class, modules, and task, information about the heap, memory manager and virtual timer, as well as examining local and global heaps. There are also functions for examining the stack, and memory.

The Help Compiler enables the production of on line help like that found in many windows programs. It provides the standard Help window and enables hypertext links and context sensitive screens.

Spy can be used as alternatives to firing up Codeview, for monitoring messages sent to windows. Messages such as Mouse, Input, system wide messages, window manager messages initialisation and clipboard. DDE spy monitors the DDE activity between applications such as string handle data, messages, callbacks and errors.

There is an intriguing tool called zoom which is like running a magnifying glass with variable strength over the screen (find the lost bit). The hotspot editor is

for creating bitmaps with hotspots on them. Thus you can create a drawing in a helpfile and use areas of the drawing as a link to more information.

The heapwalker lets you examine the global heap and local heaps. You can select objects, free blocks of memory, manipulate the heap, view resources, save images etc. Can be used for determining improper use of memory by taking snapshots before and after..

There is a stress utility to test use of system resources.

Help and Learning:

As with the C compiler there is a large number of sample source code files. There is excellent online help with all API functions, samples, tips etc.

Documentation:

A reduced set of documentation on the previous version, but, you can get additional documentation by sending in a card. Programmer's Reference Volume 1 (An Overview) 500 pages, Volume 2 (Functions), 1000, Volume 3 (Messages, Structures and Macros) 580, Volume 4, Resources & Help Compiler 380 pages.

Comment:

Now a real challenger for the opposition. Absolutely excellent for C and Windows programmer's as a development system. A good range of tools and a fast compiler. It is not to be confused, however, with Visual Basic. Whilst there are some similarities in creating visual objects, it does not represent an easy way to program Windows. You will still need to develop skills in C programming and knowledge of the Windows API.

RRP \$780**Our Price \$660**

Visual Control Pack

L22517

A set of controls familiar to owners of Visual Basic Professional, to add on to Visual C. The controls are six 3d buttons etc, graphing, serial communications, Media Control Interface, Pen Windows, gauges and a spin control. Also included is the Control Development Kit for producing your own controls.

Documentation:

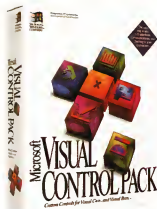
Reference and Guide, 580 pages.

Comment:

For owners of Visual C only. Visual Basic standard users should upgrade to the Professional Version.

RRP \$320

Our Price \$285



MSDOS 6.0

- Operating system with loads of utilities.
 - Disk compression
 - Backup
 - Anti Virus
 - Memory management
- O21431 Version 6.0

There is no point in talking about the standard features of DOS, after all everyone has a legitimate copy don't they? DOS 6 has a bundle of new features which make it for the price a great buy. The Doublespace feature is the most well known. This compresses the data on your

disk without any special actions on the user's part. That is it acts on the fly, whenever you save a file it compresses it and whenever you retrieve a file it automatically uncompresses it. The only exceptions are ZIP files and encrypted MAIL files. The read speed is about the same, but, the write speed can be slower by up to 40%, less if you have the Writeback cache on (see box above). This worked out to about an extra four seconds for this file .5MB when writing to disk. As reads are more critical ie hunting databases, this wouldn't seem to great a penalty to pay. With the cache the difference drops to about a second.

The compression you get varies according to the amount of space devoted to documents (easily compressed) relative to program material (less easily compressed). Generally 1.4 to 1.7 is an average ratio we achieved around the place. It takes up 43k, but, nearly all of this bar 1k can be loaded into upper memory.

Two third party addins have been included. Notably Central Point antivirus and Norton backup.

The virus checker allows you to scan any disk or directory for viruses. Repair any damaged files (far better to reload them) or have a constant running check for viruses (only if you are masochistic, it eats up memory and constantly bugs you as to whether this or that file save is ok). This is an excellent peace of mind facility, keeps away the pink elephants. Yes I know I've heard all the horror stories, but, generally unless one is careless you are not generally plagued by these things, just once a year or so, and then it is a great relief to have something on board to spot the damn things before they get into the system.

The Backup is a somewhat modified version of the Norton Backup. It doesn't do tapes and is a little counterintuitive, but, operates effectively enough. Selecting files for restoration is a little awkward. Other than that it does all the right things, formatting disks as necessary and keeping catalogues of all backups both on the hard disk and on the backup.

Smartdrive has been improved again for faster operation. See box this page.

Is it safe?

There have however been a number of instances of people losing information whilst using Double space. This seems to be somewhat exaggerated (out of some 2500 copies sold by this company we had about five complaints, however, one was from my nephew and that did nothing for family relations). The answer to the problems seems to have more to do with Smartdrive than doublespace. Smartdrive has the ability to cache both reads and writes. It has had that ability since version 4 released with Windows 3.1. The consequences of shutting down or resetting a machine before the cache has been flushed can therefore be disastrous. To be safe you need to wait about six seconds after any disk access before doing either of these. Alternatively by simply adding the drive name after its invocation in the AUTOEXEC.BAT file you can disable the write back cache and have a read only cache. Hence the first line (usually) in your autoexec.bat file should read C:\DOS\SMARTDRV.EXE I or perhaps H or whatever other drive your uncompressed drive is configured as. (Incidentally you can change this drive specification in DBLSPACE.INI a hidden file on your I drive, but, be careful).

Wrong size?

With a compressed drive you may get various answers as to how much space you have left on a drive. This is because Doublespace makes a guesstimate as to what the compression ratio will be, and different programs may make different guesstimates. Don't worry about it. Be happy you've got all that extra space.

Memmaker does the job which was so painful in DOS 5. Appropriately loading device drivers and TSRs into upper memory blocks until they are all filled up. It does a fairly good job, and can be manually customised. This will give you extra space in your DOS workspace whilst stealing some memory from extended memory.

Backup antivirus and Undelete come with a Windows version which automatically installs into Windows in a Tools group. This makes them much easier to use, especially the undelete, which now is able to save deleted files on a rotating basis, keeping them safe until it has used up 7% of the disk volume, then it purges the oldest files as necessary. You get the choice at install time whether to install DOS, Windows versions or both. Select one or the other as they take considerable amounts of space.

Defragging is at last a part of DOS. Probably should have been from about version 1.1. This is an excellent defragger as it does both uncompressed and compressed disks. Not very fast though so set it going before you go to bed.

A new handy utility is the ability to clean boot (no config.sys or autoexec.bat except the doublespace bit), single step through line by line and choose which lines to implement, or set up alternatives on a permanent basis and choose from a menu. So you can have a config.sys and autoexec.bat sequence, for windows, a scanner, or a clean one for games for instance.

Interlink is a facility for transferring data between two computers. You will need to purchase a cable to activate it, and it runs at a moderate 115kpbs, but for small jobs is probably OK.

A new command Deltree at last lets you assassinate a whole directory in one go. A move command has finally been added so you can move files from one directory to another without copying and deleting.

Help and learning.

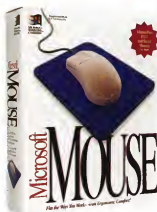
There is considerable online assistance available with examples and notes for each command.

Documentation:

The wonderful folks at the PR department have brought you a smaller less informative manual because "you asked for it". Seriously, the manual is an easier read if you're a novice, but, frustratingly all the important bits of information are on the disk on help files.

RRP \$149

Our Price \$140



Mouse

- Excellent shape and feel.
- Compatibility standard.

IA1430 Version 2.0

This is the mouse you buy if you don't want hassles. Everything else tries to be compatible with this one. The mouse comes in two flavours. If you don't like taking the top off your machine then choose the Serial/PS/2 version. This version plugs into your serial port (9 or 25 pin) or into a PS/2 mouse adaptor via the interchangeable connectors which come with it. A bus version which doesn't take up one of your COM ports is also available. This version comes with a plug in card, on which you can choose interrupts and device address to suit your configuration. Something of an anachronism, it harks back to the days when computers generally came with one serial port. The mouse is opto mechanical. It is light to touch and easy to hold and shaped to fit the hand. The ball is removable for cleaning.

The resolution and conformation of the buttons is adjustable through the Control

Panel software which comes with it. You can also adjust the rate of acceleration and the pointer size. Mouse Driver is now version 9.0.

RRP \$139

Our Price \$120

Windows Printing System

- Speeds up HP Laserjet printers with Windows.
- 79 TrueType fonts
- OU4131 Version 1.0

This add on cartridge and software speeds up printing of text and graphics on HP Laserjet Printers by as Much as 60%. It allows Windows to forgo the step of converting documents to the HP PCL language, so that it can download quicker. The cartridge takes care of the conversion for you hence the load goes off your CPU. The amount of speed gain you get depends on the amount of graphics in the document and on the amount of memory you already have. Less memory the more noticeable the speed gain relative to current speeds. There is an animated status window which estimates the length of the job and informs you of the various settings on the printer (the parallel connection becomes bidirectional with the fitting of the cartridge). If you like animated displays you can watch the pages going through the printer on screen, (or you can turn your head and watch it in real life). You can change the settings on the printer from this window.. It will also talk to you via your speaker, but, you may find this a little gimmicky. You can turn off both the status display and the voice of the ghost in the machine.

There are 79 TrueType fonts included with the software giving you the full complement of fonts found on a Postscript printer. Printed images can be scaled up or down 10 to 400%. You can adjust half toning contrast, brightness and patterning. It will work with networks, but, the feedback features and display don't work.: Help: Windows online help is included. Its not complex enough to need learning aids.

Documentation:

User Guide 90 pages, Font Guide 47 pages. 8Mb

Comment:

Speeds up printing on low end systems with Laserjet I, II or III printers. If you do lots of graphics it could be useful.

RRP \$315

Our Price \$265

Mail

- Inter and Intra office communications.
 - Local and wide area networks.
 - Message finder screening.
- C24760 Version 3.2

Electronic mail is in its infancy still. You will see extensive networks develop over the next few years as companies interconnect and the telephone companies get more involved. It provides an effective means over inter and intra company communications. It seems to have the same effect that faxes had when they first became popular. People who never returned calls, responded instantly to a Fax. Mail allows you to send messages to anyone connected to the network simply. The composer is just a small editor. You type in your message, select the recipient's name from the address list and away it goes. If it is going locally the message gets there immediately, via the local "post office". If over the phone line, it tacks on the queue awaiting the next scheduled connection. Intervals can be set to suit. It can be used on wide area networks and there are a number of gateways available to other mail systems so messages can hop across system to system until it gets to the correct destination. It supports multiple work station platforms (MSDOS, Windows, Macintosh and OS/2) as well as Servers (Novell, IBM LAN, Banyan and MS LAN Manager). Users can be moved between post offices, and changes in the Netware user directory will be automatically reflected in the Mail user directory. There is also a Remote version available for infrequent or mobile users to dial in, collect and send their mail.

There is a message finder which you can set up with a number of parameters to scan incoming mail, hence looking for keywords, phrases, or particular senders.

Help and learning:

Simple to use, no tutorial required. Windows on line help.

Documentation:

User Guide

Comment:

A real asset to any business with more than 20 employees, or scattered offices.

RRP \$4750

Our Price \$3975

Schedule +

- Workgroup Diary.
 - Meeting planner and appointment coordinator.
- D22258 Version 1.0

A diary system for personal and work group use, with an emphasis on work group communications. This program allows work groups to plan meetings. You can compare schedules, send messages requesting attendance and receive replies without having to talk to anyone. Leaves you plenty to say at the meeting. It has an easy to use diary system which enables you to simply choose appointment times, the length of the meeting, enter notes and select a pre-warning period. You can set tentative times and private appointments. Recurrent events can be set on a daily, weekly, monthly or even say first Monday of the month. There is a task manager which allows you to set priorities, completion dates and sort them in order by priority, by project or both. Other members of the work group, assuming you are on a network, can graphically overlay their schedule against yours or the whole group and organise meetings accordingly. Messages are sent via Mail, you must have Mail for this thing to work. You can print out daily, weekly or monthly schedules for inclusion in your diary, whatever.

Help and learning:

There is a tutorial showing you step by step what to do, but it's just not that hard. You probably won't need it.

Documentation:

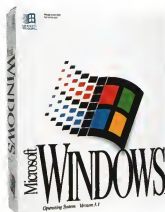
User's Guide 50 pages, User's Guide 50 pages. There are two copies because this is a licence for two users. Administrator's Guide 45 pages. Disk space 1.6 Mb.

Comment:

It has a bit of a set against A4 sized paper as opposed to letter (you have to remind it now and again if you print in small format), but never mind, I have the same trouble with my Word for Windows whenever I do a conversion from text. The Metric Conversion Board still has a lot to answer for.

RRP \$315

Our Price \$270



Windows

- Graphical User Interface platform.
 - The current standard for nearly all new software.
- O21438 Version 3.1

Windows is a platform for applications which are operated via a graphical interface. That is, it is a vehicle for running programs which have very similar ways of command and function. It comes with a bundle of minor applications, some useful some not so. The real benefit comes when you buy major applications which use the interface. Being graphical and essentially mouse driven, it provides a number of benefits. Ease of use, pointing and clicking can be more intuitive

than entering command sequences. WYSIWYG, screen fonts and appearances similar to the final printed output and interchangeability, the mixing of graphics, and text to produce compound documents. Further benefits are limited multi tasking and rapid task switching between applications. It provides a common driver for printers giving better output font wise and saving the problem of multiple configurations for printers and other devices.

The program manager controls the operation of Windows. Applications and utilities are arranged in groups of icons (program groups) in a window. A particular group, the startup group automatically invokes its icons when Windows is activated (in much the same way as AUTOEXEC.BAT does for dos. A number of utilities for working within the environment are included. The File manager is used for organising files and carrying out general disk management tasks. The control panel allows the customising of colours, the look of the screen background, installing printers, installing fonts, set the mouse speed etc, setting as well as adjusting other settings such as date format. The print manager takes care of down loading fonts and sending files to the printer via a spooler.

Windows comes with a suite of minor applications for general tasks. The clipboard enables the capture of text and graphics from one application to another, or even an entire screen or window. Paintbrush is a familiar bit mapped drawing package which can be useful for touching up clipart and clipboard images. Write is a mini word processor, useful for creating short documents with limited formatting. The notepad is a text editor useful for inspecting readme files and writing short notes. The terminal program allows communications via modems to other computers and bulletin boards. There are a number of minor utilities such as a calculator, calendar, cardfile, a map of characters (255), a clock, a media player, a keystroke and mouse recorder and a sound recorder.

This version is now well established with some 25 million copies sold. It comes

with TrueType fonts, fully scalable screen and printer fonts which along with an improved print manager greatly improves the speed of printing. Object embedding is facilitated by the object packager which can insert objects of many sorts into an OLE supporting application. System resources have been doubled, with better utilisation. The Smartdrive disk caching program is brings big improvements in speed of operation. Running DOS applications is simple with DOS running in a window or full screen. Fonts in the DOS window can be adjusted to suite the capacity of the watcher's eyeball.

Help and Learning:

There is a minor tutorial on basic operations which will get a new user started. There is also a substantial on line indexed help. There is of course considerable discussion in the press at all times regarding various aspects of the platform.

Documentation:

A 100 page getting started manual and a 650 page reference manual by topic come with it. There are some substantial readme files on the disk dealing with compatibility problems and setup issues.

Comment:

DOS is gradually becoming obsolete. We rarely see new or revised DOS packages these days. Windows has given new flexibility and ease of use to computers (provided you have adequate hardware). It is now becoming a family of products with Windows for Workgroups and NT.

RRP \$195

Our Price \$159

Windows Resource Kit

- Extra information for setting up Windows.

OU4128 Version 3.1

Just when you thought you knew it all about Windows! This is an extra reference manual for Windows which provides explanations of the workings of the INI files, including about 150

commands in the 386 enh section. There is an extended discussion on how to set up networks. True type fonts are explained, how to create PIFs, some discussion of memory management, OLE and lots more. You get some cute little applications on disk, a monitor for smartdrive caching, a thing called Topdesk which creates a virtual desktop of all your running applications and a viewer for graphics files (BMP, ICO and WMF). There is a network assistant for monitoring usage and a system resources monitor.

Documentation:

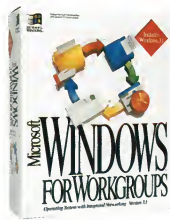
One manual 540 pages. 1.5Mb

Comments:

A bargain at this price, even if you don't need any of this stuff, it's a handy reference.

RRP \$45

Our Price \$45



Windows For Workgroups

- Peer to peer networking for Windows applications.
 - Scheduling and electronic Mail.
- O21648 Version 3.1

A peer to peer network version of Windows. This version of Windows has the capability of sharing disk real estate and printers across networked PCs. It can operate and coexist with Novell, or it can operate as a stand alone network, using Ethernet cards and cable. Only Windows

users and applications can work across the network. Local hard disks can be shared with other users on the network. There is a monitoring program that allows such usage to be checked. There are facilities for security and password access. Electronic mail can be sent via Microsoft Mail which forms part of the package. You can send, receive, read, and compose messages. Messages can be sorted and retrieved in order. Messages can have attachments such as files or OLE objects. Everything is sent via a "Post Office" which will be one of the PCs on the network. Work groups can plan their meetings and diary activities via Schedule, which is also included. DDE and OLE will work across the network, which is how Schedule keeps track of who's going where and when. The multipage clipbook comes in handy in this regard.

Help:

A brief guided tour and the usual Windows help.

Documentation:

Getting Started, 160 pages, User's Guide, 221, Schedule User's Guide, 40, Mail User's Guide, 70 pages.

Comment:

It comes in many configurations, either with or without Windows and with or without ethernet cards. There is also a starter pack including two packs with cards and some cable and connectors.

RRP \$275

Our Price \$235

Windows for Workgroups Resource Kit

- Networking information and tools.

O21657 Version 3.1

As with Windows, there is an extra reference to get you around some of those knotty problems. It gives extensive coverage of networking and setting up, describes the INI files for WIN, SYSTEM, PROTOCOL, PROGMAN,

CONTROL, WINFILE, MSMail, and SCHDPLUS. There are some utilities for troubleshooting networks, including a network reporting version of Dr Watson and testing software for network cards and CPU usage on remote other workstations.

Documentation:

Reference 480 pages.

RRP \$45

Our Price \$45



Windows NT.

- 32 bit operating system
 - Preemptive multitasking.
 - Network and security features.
- O21656 Version 3.1

Much discussed and hyped, long awaited. This version of Windows has many capabilities which should see it growing in usage over the next few years. Why a new version? To give applications the ability to take advantage of true 32 bit operation and address space. This will give added speed and security features. In this mode there can be true preemptive multitasking, the operating system determines how much of a time slice each program gets, and protection against corruption by wayward applications, each one gets there own virtual machine with its own address space. These capabilities have been with us in the hardware since the 386, but, due to a saga with OS/2 and the 286 which is too long to relate, these abilities have never been realised in an

operating system with wide distribution. With this system 32 bit applications will not only be able to operate in a multi tasking way with other applications, but will also be able to have multiple threads within programs, so for instance you can keep entering data into a spreadsheet while it is recalculating in the background. To accommodate existing software NT has a 16bit Windows within it as well as a DOS. It should run most current DOS and Windows programs, albeit marginally slower. There is extensive networking support built into NT. Along with the network support are the extensive security features. You can share any resource on the network, other disk drives, printers etc on any other machine. You can set up user accounts and groups at various levels of access, to disks, directories and files, all password protected. NT recognises which user is logged on and provides their customised layouts and colours automatically. It can Network with either other NT machines or Windows for Workgroups machines. Like Windows for Workgroups it has fully functioning 32 bit versions of Mail and Scheduling software (described elsewhere above)

There is a network wide multiple storage clipboard for passing graphics and data around, and keeping them constantly up to date. Unlike Windows you don't need to edit an INI file for system setups, all information is kept in a registry, which you access via the setup software.

There is a new high performance file system (NTFS) which allows 256 character names (only with 32 bit applications). It can solve bad sector problems on the fly, moving the data to another sector and marking the bad sector as such and will recover elegantly from crashes. The file system can be accessed from 32 bit apps only so you will need a FAT partition to run your standard DOS and Windows applications. You can set up a dual boot system if you wish choosing at startup time whether to boot DOS or NT.

Installation involves some 25 floppies, or CD-ROM if your lucky enough to own

one. If you are hopefully it has a standard SCSI interface as it will then work well with NT. There are over six hundred printer drivers, video drivers for ten super VGA chipsets including Tseng, Trident, VESA and Video Seven. It automatically recognises and sets up accordingly most standard network adaptors, many of the most common soundcards and the most common SCSI adaptors. The good news is you don't have to lose your existing software on your disk. It will even take its cue for setup from your existing Windows program.

Help and Learning.

There is a walk you through tutorial on most aspects of running and setting up the security system, Network access, mail and Schedule.

Documentation:

System Guide 600 pages. That's it, no not three pine forests per box. Disk space 70Mb, yes that's right.

Comment:

What can we say that hasn't already been said. Only remote villages in the New Guinea Highlands haven't heard about it. When applications become available it will be terrific. If you can afford the hardware. It's ironic that the resin factory burnt down and the RAM price more than doubled in the month before its release. They say you need at least 12MB of RAM. 16 would be better, 32 would be excellent.

RRP \$495

Our Price \$395



True Type Font Packs

Pack 1: WU2877

Pack 2: WU2878

This set of additional Truetype fonts enhances the set found in 3.1. The fonts are easily installed, a two minute operation and are instantly available. They, together with the original set, give a set of fonts equivalent to a Laser writer Plus. The fonts are of the type which can be transmitted with your document and reused on another printer, providing the document is not edited.

Pack 1: RRP \$115 Our Price \$100

Pack 2: RRP \$115 Our Price \$100

Lucida Blackletter

Lucida Bright

Demibold, *Italic*, *Demibold Italic*

Lucida Calligraphy

Lucida Fax

Demibold, *Italic*, Demibold Italic

Lucida Handwriting

Lucida Sans

Demibold, *Italic*, Demibold Italic

Lucida Sans Typewriter

Bold, Oblique, Bold Oblique

Lucida Bright Maths Extensions

התאריך: 10.10.2019

Lucida Bright Math Italic

—SAGR★ III PGFER —★

Lucida Bright Math Symbol
 $\Rightarrow \mathcal{R} \mathcal{N} \mathcal{F} \mathcal{A} \mathcal{T} \succ \mathcal{O} \mathcal{F} \mathcal{D} \mathcal{E} \mathcal{Q} \uparrow$

Apical Notch

Bold. *Italic.* Bold Italic

Bookman Antigua

Bold. *Italic. Bold Italic*

Bookman Old Style

Bold *Italic Bold Italic*

Century Gothic

Bold Italic Bold Italic

Century Schoolbook

Bold *Italic Bold Italic*

Bold, Italic,
Monospace Carriage

Monotype Corsiva
Monotype Extra

Monotype Sorts
 ★■□▼□□❄❄❄❄❄❄❄❄❄❄

Details

Company: _____

Phone: () _____ Fax: () _____

☐ Cheque ☐ Bankcard ☐ MasterCard ☐ Visa ☐ Amex Expiry Date _____

Signature: _____

Please supply the following...

Comments: _____

PHONE (07) 832 2277
FAX (07) 832 2055

If you liked this catalogue, then send for our main 1993 Catalogue...

Our main 1993 Software Catalogue is a huge 112 pages of succinct descriptions of around 370 software products, what they do, what you need to run them, and what we think of them *-including our own "No Bull" rating system.* To receive your FREE catalogue, simply post or fax your business card to us and we will send your catalogue by return mail.

SOFTWARE
Express



MELBOURNE

1st Flr, 43 A'Beckett St, Melbourne. 3000
Phone (03) 663 6580. Fax (03) 663 6117



SYDNEY

1st Floor, 60 Clarence St, Sydney. 2000
Phone (02) 299 4799. Fax: (02) 299 4797



BRISBANE

Gnd Floor, 348 Edward St, Brisbane. 4000
Phone (07) 832 2277. Fax: (07) 832 2055

